MESG

MESTRADO EM ENGENHARIA DE SERVIÇOS E GESTÃO

Understanding and Mapping the Retailing Employee Experience: A Qualitative Study

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Master Thesis

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Abstract

Customer experience has been gaining ground among different design or technology-based organizations in service provision as an ally to value creation. This study aimed at exploring employee experience as a holistic and human-centred approach that can support a large organization in the development of oriented solutions that leverage different instore services. To address the challenges faced by employees, mostly related to the digital touchpoints they interact within the retail sector, the focus on the exploration stage of the service design process allowed to execute an in-depth assessment of different settings relative to some retail employees from the capacity of understanding peoples' contexts, relationships and constraints, to the definition of current scenarios and recommendations of concrete improvements. Contributions from theoretical and professional fields are analyzed to describe the core characteristics of the approach as well as the key steps of some phases of the service design process. This project followed a qualitative research supported on DSR methodology, in order to attain rich and diversified outputs that enhance the potential for retail service innovation. To understand the employee experiences, this study conducted semi-structured interviews and direct observation. To support the data analysis, the software NVIVO was utilized to assist the coding process. To conclude, this study identified the needs of employees and their expectations to reach a good level of a positive and desirable experience. This information has enabled to map current scenarios and to suggest improvements for the existing services focused on their key pain points.

Keywords: Customer Experience, Employee Experience, Service Design

Resumo

A experiência do cliente tem ganho cada vez mais notoriedade entre diferentes organizações baseadas em tecnologia ou design na sua prestação de serviços como um aliado à criação de valor para o cliente. O presente estudo tem como objetivo explorar a experiência do colaborador de retalho como uma abordagem holística e centrada no ser humano que pode sustentar uma organização complexa no desenvolvimento de soluções orientadas que alavancam diferentes serviços internos. No sentido de abordar os desafios enfrentados pelos funcionários, maioritariamente relacionados com pontos de contato digitais no referido setor, o foco na fase de exploração do processo de *service design* no estudo permitiu executar uma avaliação aprofundada de diferentes ambientes relativos a alguns colaboradores, desde a capacidade de compreender os contextos, relacionamentos e restrições das pessoas, até à definição dos cenários atuais e recomendações de melhorias específicas. Contribuições de campos teóricos e profissionais são tidos em consideração para descrever as principais características da abordagem, bem como os principais passos de algumas fases do processo de design de serviço. Este projeto seguiu uma pesquisa qualitativa apoiada na metodologia DSR, a fim de obter resultados ricos e diversificados que aumentam o potencial de inovação em serviços de retalho. A fim de entender as experiências dos funcionários, este estudo realizou entrevistas semiestruturadas assim como observação direta. Para suportar a análise de dados, o software NVIVO foi utilizado para auxiliar o processo de codificação. Para concluir, este estudo identificou as principais necessidades dos funcionários bem como as suas expectativas para alcançar uma experiência positiva e desejável. Essas informações permitiram mapear os cenários atuais e sugerir melhorias para os serviços existentes com foco nos seus principais pontos críticos.

Palavras-Chave: Experiência do cliente, experiência do colaborador, design de serviços

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List of abbreviations

ALI – *Apoio à Linha Interna*

BIT - Business Information Technology Department

DSR – Design Science Research

FIFO – First In First Out

IGL – *Implantação de Gama no Linear*

IT – Information Technology

SAC – Customer Service Department

SD – Service Design

UI – User Interface

UX – User Experience

1 Introduction

This study was conducted in the dissertation subject integrated in the Masters of Service Engineering and Management Programme of Engineering College of Porto University.

The project was fully conceived under Sonae MC in a curricular full-time internship context. The program that incorporated this study was the Call for Solutions Challenge proposed by BIT (=Business Information Technology) Sonae MC and lasted approximately four and a half months. This is an open innovation initiative focused on inviting graduate students from the best Portuguese and Spanish higher education institutions to solve challenges of the different Sonae business units, actively contributing with ideas and groundbreaking solutions. Comprising two annual editions, one on each semester, the master's thesis is leveraged on the internship.

In a broader perspective, the project intends to understand and map the customer experience of retail employees in their daily routines with the final goal of identifying opportunities in their journey to improve both performance and employee satisfaction. Validated in the context of BIT department, the analysis of various profiles and correspondent roles' duties is going to be presented. After, insights towards a more efficient service offering in what comes to information technology (IT) interaction and tools are provided.

1.1 Project background

Sonae is a multinational enterprise that owns and manages a portfolio of companies, cre- ating value in several geographies, with great capacity for innovation and execution. Spread across the globe, it has present in 91 countries in every continent with more than 45.000 em- ployees. Founded in 1959 under the name *Sociedade Nacional de Estratificados*, the business started to focus in processed wood, more specifically in high-pressure decorative laminate pan- els' production. In the first two decades it remained as a small and medium enterprise (SME), being followed in the next years by several moves of diversification and becoming a listed company.

Presently, Sonae has a broadly diversified portfolio being present in numerous areas of business such as retail, financial services, technology, shopping malls and telecommunications, having present its main mission of creating long-term social and economic value, bringing progress to a growing number of people.

One of Sonae's key success factors is their attitude towards a learning organization, highly focused on knowledge and continuous improvement. In this way, the company is able to meet current and future challenges of the business, creating and sustaining solid competitive advantage. Another determining success factor is the thought of the team as a key part of the whole process, for many good individual talents that it may have. Having this said, the evolution process is done both with teams and collaborators, proofing to have an investment in talent integrated management.

To join the vast amount of resources, and bring together everyone in the same page the company has outlined a set of shared values, in their origin and DNA, also serving as a legacy for the future. Sonae's culture is what keeps such a large structure together and makes them special, in whatever business or geography. The values are trust and integrity, people at the center of success, ambition, innovation, corporate responsibility, simplicity and efficiency, corporation and independence.

Currently, Sonae MC is the national market leader in food retail, having revolutionized consumption and commerce' habits in Portugal in 1985, opening the first hypermarket (Continente) in Matosinhos, Portugal, still in operation today. Presently it presents a set of diverse business offering a wide range of superior quality products to the most competitive prices: Continente (hypermarkets), Continente Modelo and Continente Bom Dia (smaller size, convenience supermarkets), Meu Super (proximity stores in franchising format), Go Natural and Bagga (coffee shops and restaurants), Note! and Make Notes (stationery and book store materials), Well's and Dr Well's (health, wellness and optics), ZU (products and services for dogs and cats).

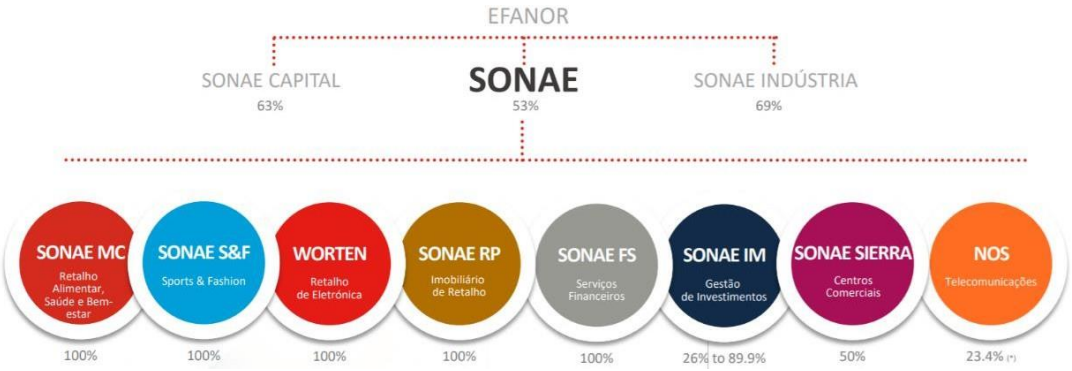

Figure 1 - Sonae's Corporate Profile

1.2 Problem Description

Exploration → Ideation → Reflection → Implementation

The present study is leveraged in service design concept. To begin with, the representation above illustrates service design process, typically iterative with possible loops before go to market. Decomposing it by stages, the first one - exploration -, demands studying the stakeholders of the project, together with their experience, behaviour and environment in a human-centred design approach. Next, ideation consists on the generation and development of new ideas that might lead to service solutions. The third stage, reflection, requires prototyping all the created service concepts followed by a test of it with potential users. This stage is highly important to gain a more concrete idea of the service concept since services are intangible and therefore hard to envision in a practical way. Lastly, implementation involves planning, implementing and reviewing the necessary modifications to put the new service concept accessible to the customers. (Patrício & Fisk, 2017)

Customer experience has become increasingly important for service organizations that see it as a source of sustainable competitive advantage (Teixeira et al., 2012) since it engage and retain customers generating loyalty and long-term profitable relationships. Also, is key since is the impression a consumer gets with a brand across every stage of the customer journey being crucial to a consistent and sustained growth of any business.

Similarly, customer experience is the internal and subjective response customers have to any direct or indirect contact with a company. Often, direct contact occurs over purchase and use

usually initiated by the customer whereas indirect contact involves unplanned encounters with company's products or services, taking the form of word-of-mouth recommendations and reviews. (Meyer, C., & Schwager, 2007, Verhoef et. al., 2009).

A recent IBM report identifies customer experience as a key factor for companies to use in building loyalty to brands, channels and services (Badgett, Boyce, and Kleinberger 2007).

Another source confirms organizations such as IBM and Microsoft are starting to exploit on this macro aspect of the customer experience, as evidenced by IBM's acquisition of the Weather Company (www.weather.com), with personalized and actionable business insights leveraged in artificial intelligence, Internet of Things (IoT) and analytics technologies, integrated into IBM's customer experience management platform, as well as Microsoft's partnership with Accuweather. (Lemon & Verhoef, 2016)

Having this said, taking into consideration the structure dimension of BIT Sonae, it becomes vital to access documentation as a starting point of what could be defined as a journey map that would cover all the main actions and tasks performed by employees, emotional status, context and role and a highlight of the used touchpoints.

At BIT, often design team and business partners work together for common projects, either joining forces for new projects from the scratch, or in case of an existing one request an additional feature or configuration, requirements are defined and later translated into functional deliverables, through an iterative and dynamic approach. In this scenario, there is not available documentation that allow these two teams to understand in depth the underlying needs and activities to each type of user. The objective here is the team to put themselves in user's shoes and attempt to identify what kind of information or display could better work for a given persona, maximizing the usefulness and relevance of used tools in order to optimize the usability and overall workflow.

By doing this, it becomes possible to design and deliver an effective and responsive service, that not only takes into account the activities needed to job execution but also the human computer interaction, which has a significant impact for the project success, budget constraints and effort invested.

In this study, it is possible to perceive workforce from Continente Maia Jardim as customers, given the strong interaction with a multiplicity of internal devices and systems on a daily basis, joined with the fact a substantial number of back office tools are developed for analytical and operational purposes. Having this said, once the customer journey map is designed, it is clear to better understand their requirements and needs as well as major implications.

To prove and reinforce the importance of service design as a value creator, some examples follow that illustrates the application and foundation of it into business development.

There is a variety of companies invest in their own design research framework, in order to ideate customer-oriented solutions and solve users' problems at a high speed and scale. That is the case of IBM Enterprise Design Thinking Team. That said, this department focus on user outcomes, solving old problems in new ways with diverse empowered teams in order to see the same problem from many angles combining strengths of different areas. The motto here relies on the fact human needs remain unchanged through the times unlike the ways they can be answered. The available solutions for a given need at any time is highly shaped through the constraints and affordances of the era namely technological advances, evolving resources and customer expectations. It is relevant to highlight, they do put an effort on understanding people first than thinking about them as users having their behaviours and fears into consideration

when designing a solution. Also, they believe shifting focus from features and functions to users and desired outcomes allows to achieve more useful and usable final solutions.

Also, in a service design's enhancement perspective, there are strong organizations' which recently are advocating for the unique aspects of service design, as follows (Ostrom et al., 2010):

- Service Design Network (SDN) in Germany – dedicated to the German service design community;
- IDEO – global design company committed to create positive impact. ("Ideo," 2019);
- Stanford University Design School - supporting people unlock their creative potential applied to all kind of problems.
- United Kingdom's Design Council – charity organization as government's advisor on design.

Additionally, in the last decade, many organizations have focused on traditional product innovation to address the challenges of globalization and economic transformation. This conjuncture asks service innovation to consider how to design and transform delivery process to improve productivity and performance. Typically, the innovation starts with identifying customer needs, beyond the business needs, and then include creativity into the innovation process. To do so, firms should involve several stakeholders and strong sources of strategic thinking to maximize the impact and uniqueness of the service idea. To sum up, beyond combining people, processes, technology and information service innovation involves new concepts, new approaches and new techniques that identify interdependences concerning the consumer and service organization. (Ostrom et al., 2010)

1.3 Research Questions

Given the stated problem, whether through the company perspective and the academic, the following objectives intend to answer and later propose a resilient and long-lasting solution. The objectives presented in this section are planned to conduct the overall research direction on the different stages of its progress as well as the type of data to be collected and from whom.

Sonae's value proposition is mainly focused on delivering excellent products and services underlying on a learning organization. Also, the firm has a strong culture based on continuous improvement and training, concentrating major efforts on the final customer and consequently less in employees' workforce. The contribution of this study is applied in that gap.

The objectives are:

- Understand the instore employee experience to generate inputs for the development of innovative retail solutions;
- Design a new employee experience mapping adapted to the retail employee experience.

The first objective will contribute to the understanding of employees' daily journey including major activities, relationships and outcomes and most importantly what is it that they value, by tracking down main paint points and bottlenecks. By doing this, it is possible to attain professional's point

of view of their individual experience, enabling a more in-depth perception of what these individuals need, desire and what are the main issues they face. Walking in user's shoes can bring great benefits in what comes to gain a new and profound perspective of their context. By doing this, the inputs derived from this research work will serve as a starting point for the development of oriented instore retail solutions.

This study also intends to address customer experience mapping approaches adapted to the retail scope. That said, the mapping approach should contain all the significant elements to accurately reflect the reality in a holistic and integrated way

1.4 Study and Project Development at BIT Sonae

This project at BIT Sonae started in the beginning of February and ended in late of June 2019. Business Information Technology Department (BIT) is the Information Systems department of Sonae, constituted by a group of people strongly dedicated for the advances in business and technology breakthroughs, creating fast, cohesive management and decision tools for all Sonae group. BIT's success is entirely dependent on Sonae's global success and to the way in which employees work. The company stands up for a work with excellence, transparency, boldness, creativity, consumer oriented and a strong sense of ownership.

To better illustrate the company structure and departments at different levels of the organization, above is presented the overall company's organogram divided by business units. There are seven major work areas, each one also with smaller teams allocated.

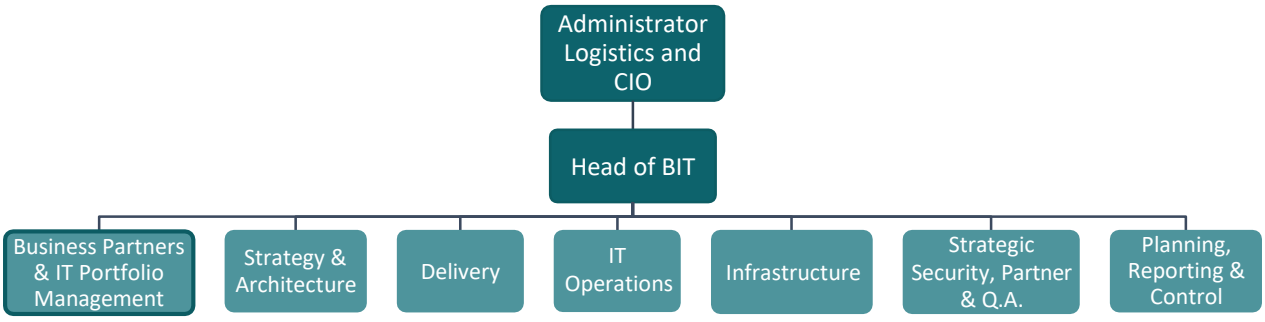

Figure 2 - BIT General Organogram

The highlighted department "Business Partners & IT Portfolio Management" is where this pro- ject was integrated, more specifically in the UX/UI team allocated in the e-commerce area, as it is represented in the following graphic. It is to note this team is in charge of materializing all the interfaces of e-commerce projects that are accessible to customers and partners, such as different apps, websites and several back office analysis systems, such as order management tools. This means whether low or high fidelity mockups and prototypes, according to the project requirements and scope, are built within this group.

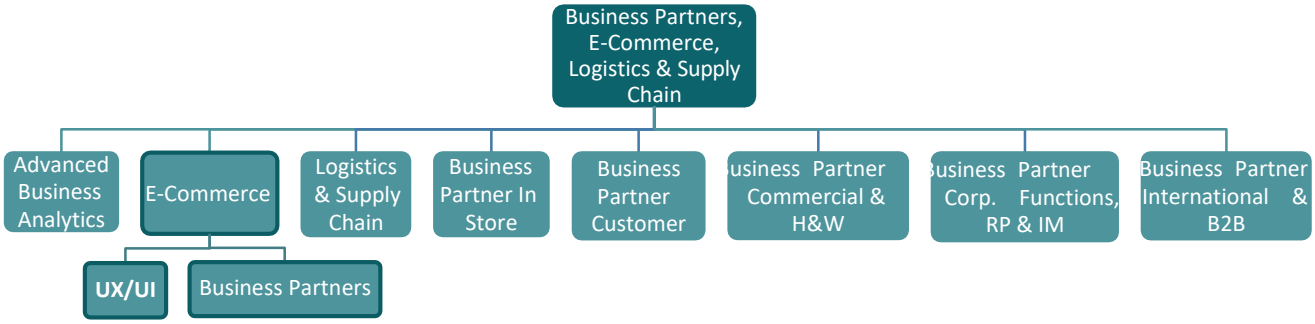

Figure 3 - Detailed Business Unit Organogram

During the internship period, data was collected with all the internal stakeholders and instore collaborators related to the project, namely in contextualizing team's synergies, collaborative issues and getting in touch with internal tools, concepts and individual journeys. As previously mentioned, Sonae believes and encourages a continuous improvement and learning culture, and so disseminates an internal academy with several training sessions about the most diversified themes in which it operates: foundations of supply chain, infrastructure, customer, merchandising, business intelligence, instore, digital, corporate functions, which were a supportive approach to accelerate awareness and integration of the project.

Data collected was to analyze the current situation, in order to understand each specific employee experience and identify opportunities to improve these experiences.

The study comprises two main stages which are exploratory study and analysis of the internal collaborators' experiences. Regarding exploration, as the first stage of service design process, involves project framing and contextualization, qualitative methods of data collection and customer experience study through employee's involvement. On the other hand, experience study aims to understand employees' activities on a daily basis, constantly managing expectations, as the main source of data is collected from people. This includes the objectives and requirements related to each activity, as well as its contextual aspects such as the actors related in some cases and physical artefacts and technology systems upon which they interact. Study findings will be later systematized through personas, customer experience modelling and customer journey mapping. Furthermore, this study mapped these employees' journey and identified the multiple stakeholders and touchpoints that support the activities involved and understand how they relate in this retail ecosystem. Additionally, the objective of this study is to identify/propose opportunities for an improvement on the existent workflows.

This project followed a qualitative approach with the intention to understand the activities employees perform and their emotional status regarding their professions, their goals and context in which they operate. The main goals of this methodology were to discover and learn about collaborators journey and identify major role's implications and patterns across different work divisions. This qualitative method includes conducting open interviews that follows a theoretical sample. The sample considered along this study covers a varied group of twenty-four of relevant collaborators that will be clustered into different key profiles in order to attain a complete representation of the customer experience.

1.5 Report outline

In order to attain the expected results, the present report can be structured as follows: the first chapter presents project contextualization including hosting company presentation, problem background and description as well as research questions. Next section is dedicated to cover the literature review focused on some of the core concepts related to the project context. This fragment is designed to present the existing literature about the topic, helping to better understand where the research positions in relation to others, context and key contributions for the research area.

The third chapter is where the problem is characterized, taking into consideration the problem raised by the company which defines practical objectives of the work. Research objectives should also be defined and highly related to the gaps identified in the literature. This section is also focused on the as-is situation of several internal collaborators' experience assumed to be a starting point for customer experience mapping. By doing this, it provides an overall detailed explanation of what this project is and how the company could improve the explored pain points in the journeys and experiences.

The third chapter explains the methodology used to collect the information required for the project progress, comprising an explanation of existing approaches and motives for the choice of the used method. It describes how data was reached and how it was examined to fulfill dissertation needs. Fourth chapter presents all the attained results of the project and discuss the success and feasibility of the ideas and solutions generated throughout the investigation, in detail. Fifth chapter includes future research recommendations on identified bottlenecks throughout the project. On the last chapter, dissertation report is closed with the highlights and constraints of major conclusions.

2 Literature Review

2.1 Service Design

Service design is often defined as the outside-in perspective on service development. (Mager, 2004). Often concerned with methodically applying design methodology and principles to the design of services. Usually assumes the customer/user as the initial point into a particular service point and through the use of creative, human-centered and user-participatory methods models how the service can be performed. Also, it incorporates the odds and means to implement a service that fulfills the desired qualities aligned within the economic and strategic purpose of a firm. (Holmlid & Evenson, 2008)

As a discipline, it should not be interpreted as an isolated filed, but as complementary to service development, management operations and marketing. (Edvardsson, Gustafsson, & Roos, 2005) The human-centered approach through which service design is leveraged, is based on several methods having some emphasis in enactment and prototyping in terms of how the service can be executed, measured, and with what qualities elements. (Moritz, 2005)

This kind of approach starts with the person – her goals, what she does, what she wants to achieve as well as what she experiences. It is to note one important attribute typical of this methodology, the fact the overall process is iterative, meaning the evaluation of service design solutions and ideas is performed and tackled together with the customers and stakeholders in regular meetings. Incorporating their input in the design of the final solution strongly influences the global creative process, whether as incremental changes or breakthroughs innovations. An example of a certain valuable method to center efforts on the person is documenting the customer journey. In the case of the present study, it is focused on the employee journey. (Holmlid & Evenson, 2008)

Despite the fact service design is often stated as an approach that can address both the creation of new services and service redesign, most of the literature mainly focuses on how service design can enable the development of new service solutions rather than improving existing ones (Berry & Lampo, 2000)

Service design is defined as a multidisciplinary field that entails cooperation between different competencies that demands a various stages' process, from research to concept development, also considering, some of the times, service implementation. Its objects are complex systems comprising both physical and intangible elements, such as interactions and processes among different stakeholders. Within this framework, embracing a service design approach signifies understanding or creating the conditions for service development by taking into consideration all the components that characterize the service system. (Foglieni, Maffei, & Villari, 2018)

Service design has been designated in several ways both in the academic and professional fields. On one hand, scholars consider service design as an approach endue to build a relation between a given context, organization, and people through the understanding of a service performance. On the other hand, from the professional perspective, service design is mainly described as an activity capable of generating value for the organization assured by the adoption of a user-centered approach, such as a human-centered angle. (Foglieni et al., 2018) As stated by Mager and Sung (2001),

"Service design aims at designing services that are useful, usable and desirable from the user perspective, and efficient, effective and different from the provider perspective. It is a strategic approach that helps providers to develop a clear strategic positioning for their service offerings. Services are systems that involve many different influential factors, so service design takes a holistic approach in order to get an understanding of the system and the different actors within the system."

2.2 Documenting customer journeys

In order to gain understanding of the service experience it is critical to "walk in the clients' shoes" – to apprehend and live the employee journey, the way a user would do. Different techniques are available to document the journey such as process mapping, shadowing and observation, bearing in mind the most important step to take is to deeply understand all the actions and restrictions involved and try to design other paths that may be tried in latter stages. Collecting quotes from customer under study is a suitable way to identify difficulties, opportunities and what people value within a service. (Holmlid & Evenson, 2008) Depending on the type of service being designed, trying to imitate certain physical or psychological attributes of the customer, such as height or beliefs and behaviors is of great value. By being positioned through the lens of the customer, it becomes easier to design a useful and valuable service, that actually addresses real needs.

The customer journey map focuses exclusively on the user experience, highlighting step by step all the options available to the user. The user experience can be visualized through storyboards and videos as well. (Foglieni et al., 2018) After the solution is developed, it should always be validated, which typically represents the next step of the service design process.

According to the same source, it is possible to outline some common directions for the service design practice:

- Service design is a holistic, user-centered approach focused on the relation between provider and user;
- The service user is at the center of the experience over time, i.e. before, during and after the effective use of the service;
- The user experience is made available by actors, processes and activities provided by or connected to the service provider;
- The application of service design competencies within an organization can result in solutions that bring increased user satisfaction, more compelling brands, and the acceleration of new ideas to market, establishing improved or new processes for service creation and development that more effectively support innovation.

2.3 Experience

The term experience refers to the set of impressions, both rational and emotional, created by customers' contacts with products and services – in other words, a perception created when people consolidate sensory information. These impressions can take a subtle, unintentional or extremely obvious form whether by happenstance or deliberately thought. They may happen as isolated events or as a shared episode. Collectively, they become an experience. (Carbone & Haeckel, 2005)

Also, any experience is highly subjective as human beings have feelings, different opinions, approaches and demeanors. (Morgan, 2017)

2.4 Customer Experience

Companies have become increasingly conscious of the need to create value for their customers in the form of experiences and not only through products or services. To carry out this operating mode, companies must invest on understanding of the customer's journey – from expectations prior to the experience to the assessments they are likely to make subsequently. (Haeckel, Carbone, & Berry, 2003)

In order to do that, the first step an organization should undertake towards customer experience's total management is to recognize the "clues" it is sending to customers. Experience clues that embody a customer experience are everywhere, by anything that can be perceived, sensed or noticed by its absence. Having this said, the offered product or service provide one set of clues, the physical settings provide more as well as the employees and any other resource involved. Each of these clues convey a message, suggesting something to the buyer, and the combination of all the clues constitute the total customer experience. (Haeckel et al., 2003)

Additionally, clues can be divided into two categories. The first one refers to actual running of the product or service, primarily interpreted by the logical circuit of the brain. For instance, when experimenting a rented car, in case of the car engine stars when and how it is supposed to, gives the feeling that other basic aspects of functionality work too, which gives confidence to the customer. On the other hand, secondary category refers to the emotional component allied to the good or service's purchase, including smells, sounds, textures and surrounding environment. In other words, these are all clues that encircle the functionality of a product or service, tending to address emotions rather than reason.

Undoubtedly, functionality is essential since if the service does not satisfy a given need, people will not buy it either way. The practical result of this statement is that these are the commonly called points of parity that companies must have to be able to compete in the market.

Nonetheless, what is less clear is that emotional clues are as important as functional ones, working synergistically creating value to the customer.

A common phenomenon is the fact many companies excel in individual interactions with customers, but fail to pay suitable attention to the complete customer experience along with their offerings on the moment of purchase and after. Organizations able to fully manage the total experience obtain enormous rewards such as reduced churn rate, enriched customer satisfaction, increased revenue, declined costs and greater employee fulfillment. Furthermore, these firms also determine more effective and improved ways of collaboration across the organization, embodying a process that delivers gains throughout the entire company. (Duncan, Jones, & Rawson, 2013)

Improvements in customer experience may reduce churn and build competitive advantage. (Duncan et al., 2013) Customer experience encompasses every aspect of a company's offering, not only the quality of customer attention but also advertising, packaging, product or service features, ease of use and reliability. (Meyer, C., & Schwager, 2007)

Many firms have been trying to measure customer satisfaction, but it does not say how to achieve it – it is the result of personal perceptions and experiences. To understand how to

achieve satisfaction, a company must deconstruct it into its component experiences. (Meyer, C., & Schwager, 2007)

A prosperous brand outlines customer experience's by embedding the major value proposition in offering's every feature. (Meyer, C., & Schwager, 2007)

Knowing these subjective experiences and the role every function plays in shaping them is crucial. Despite the major investment companies are making in traditional loyalty programs such as customer relationship management (CRM) technologies, most of it does not pay off in suffice of what is expected. Frontline staff members have major importance when it comes to dealing directly with customers determining devoted brand followers or not. Good service provider companies often earn trust and loyalty during moments of truth, defined as those interactions when customers invest a high amount of emotional energy in the involved outcome, such as a canceled flight situation. Handling properly these moments requires an instinctive frontline response that puts the customer's emotional needs ahead of the company's' and employees' agendas. (Beaujean, Davidson, & Madge, 2006)

Having this said, another concept such as customer value can be defined as a combination of both functional and emotional benefits received without the financial and the nonfinancial components suffered. It should not be reduced as straight as functionality versus price – which can be easily supported by the existence of first-class flights' prices. Sensory experiences are what outweigh consideration of price and those organizations with little sensitivity to customer experience focusing only in reducing costs likely to maintain a cost leadership strategy, may end up reducing their offerings' value to the market.

In order to enhance and fulfill an overall customer experience, companies should pay close attention and properly manage the emotive element of experiences with the same accuracy they deploy to the functionality.

The advantages of adopting customer experience practices can be a differentiation factor. That said, pioneers who do that, by implementing the needed modifications to provide customers a memorable service position themselves in a superior approach within the market. Empirical proofs suggest first mover gains are typically reflected in economic profit or market share. Additionally, they can benefit from one of the main first-mover advantages pointed out as technological leadership by (Lieberman & Montgomery, 1988).

By doing such, the company is able to provide an oriented and pleasing experience while establishing a solid brand recognition and loyalty in customers before competitors do. The fact they were pioneers allow these firms to reinforce their bonds with customers from the first moments and be consistently ahead of other entrants.

2.5 Employee Experience

Employee experience has only developments until it becomes a top priority for all levels of hierarchy and an organization's activity change to reflect that. Only with global awareness on the importance of the experiences, corporate decisions are conditioned by it. When persuaded of this thought, every team has a role to play; including marketing, service operations, product development, IT, human resources and financial teams. (Meyer, C., & Schwager, 2007)

Leaders focus less on the emotions needs to serve customers than on the emotions required to help frontline staff perform well. The needed skills include identifying opportunities to improve customer experience and company's performance, coaching and training. (Beaujean et al., 2006)

Though companies hold great knowledge about customers, such as buying patterns, incomes and socio-demographic information used to segment them, they know little about the thoughts, emotions and feelings expressed by those customers when interacting with products, services and brands. (Meyer, C., & Schwager, 2007) This statement can be supported by the difficulty and struggle some executives typically face to transform the way a company responds to its customers. Often assuming whether the emotional responses cannot be influenced being determined by birth or to script what are by definition spontaneous events, removing empathy from customer experience. (Beaujean et al., 2006)

This term includes the totality of moments with the company, from the first conversation with a recruiter and the last one with a manager. It is career progression, rewards, promotions, social relationships, workplace and so forth. Most importantly, it is the way of how these individual elements blend and interact together. (Enterprise Design Thinking, 2019)

In order to better understand it, first it is crucial to apprehend their key moments and activities, key pain points and touchpoints, and tools that encompass their journey and overall experience. Observation of employees in their own environment and interviews are often common in the employee experience research, focusing on people across different parts of the business and locations. Improvements in this dimension typically impact the bottom line in such a way employees save time, and time is money, for instance by having different systems and programs interconnected and linked together. This allows managers to spend less time supervising businesses creating more time to drive the business. (Enterprise Design Thinking, 2019)

Employee experience is also the approaches designed to optimize how employees work and it can be perceived in three ways – the first one would be through the eyes of the employee. Secondly, through the eyes of the organization and the third is the overlap between the two. Employee experience is something created and affected by both parts that are encompassed: employee and the company. Leaning towards people working at a given organization, experience is the reality of what is like to work there. On the other hand, from the organization's perspective, employee experience is what is designed and created for employees, typically meaning what the organization believes the employee reality should be like. This represents a huge challenge in a way that it does not mean the employees perceive things in the way they were designed by the organization. (Morgan, 2017)

The best managers understand their employee's emotions and their own. In fact, managers have a great impact on employee's performance often setting the trend of a workplace. In order to build a positive emotional and supportive culture in the firm leaders must undertake an individual management of each employee by understanding their own strengths and weaknesses.

Taking into account into personal interests helps managers to better address each employee drivers while supporting a healthy relationship. Also, while leadership requires multiple accountabilities and managing abilities, it is acceptable that even so, there are temperament fluctuations and reactive and short-tempered managers can be tactless and discouraging, so acknowledging there is something difficult going on can help teams to avert unnecessary worry. In the same way, the ability of leadership to listen to let teams know their work is appreciated

and explore some emotions that can be felt might help and arm others for the same burdens of the office. (Mollie West Duffy & Liz Fosslien, 2019)

2.6 User Profiles and Personas

Personas are defined as in interaction design technique with great application and potential for software product development. The advantage of this tool is the emphasis on users and work perspectives through novelized settings and its subjective view. It also rises overall user focus and awareness into service design.

To communicate effectively, a designer must have a clear, cohesive understandable image of the product being designed and the user must be able to understand that communication. (Norman, 2013)

User demographic and behavior information attained from real user observation provide valuable information for designers. Personas are fictitious user representations created in order to embody behaviors and motivations that a group of real users might express, representing them during the project development process.(Junior & Filgueiras, 2005)

The process of creating personas sustains assumptions about the target market more unambiguous once they represent a mean for communication – work as an information channel about users and work environments derived from research techniques such as ethnographies, market research, usability tests, interviews, observations and so forth.

Once a persona is familiar to a team, any requirement can be easily spoken if is thought for "John" rather than for "subset of participants". Often team members see "John" as a real person and this kind of connection is proven to be exceedingly powerful for communicating results within the team and immediately extrapolate "John" behavior to other circumstances. (Pruitt, 2003)

This is of great importance to manage expectations of programmers, who with their mathematical nature have a natural reluctance to think about specific user cases, preferring instead to think about general cases over an individual with goals and pain points. This said, a totally defined persona is key to the suppression of any propensity for the development team to usurp or mislead the persona's role. (Cooper, 2004)

There is a risk associated with the personas' development which is highly related to the temptation of persona reuse – it is important to focus and target a persona for a certain effort and not applying it to another scenario for different teams, projects and goals. Some adaptations are acceptable, if it is the case of target market overlap. Additionally, marketing and product development have different requirements that need different personas or even target market. Marketing – buyer behavior and customer; product development – end users. Overuse is another pointed risk.

User profile and personas represent an aggregated conceptual model of targeted user group used to support collective knowledge that strengthens user centered design through analysis, design, development and implementation process. (Lerouge, Ma, Sneha, & Tolle, 2011) This tool is also designed to enable shared comprehension between a collective team and its communications resulting in a better service offering.

A user profile is frequently represented as a series of descriptors, e.g. “female, aged between 30-35, expert level computer user”. Often helps IT staff teams to focus on users by identifying key user tasks and capabilities, influencing further requirements and conceptual frameworks.

Often used as a communication tool, a persona is a fictitious and generalized characterization of a user produced to symbolize a group of users. Typically, it is a profile brought to life often covering a name, photograph, delights and aversions, background, practices and common beliefs.
Most of all, the primary goal is to plainly highlight the main goals for the user and what they are trying to achieve when using a given system. The main advantage of using personas is to allow development team to identify with future users, establish a clear communication with them and to serve as a continuous warning to incorporate identified user requirements into the tool. Also, another pointed benefit derived from a persona’s use to assist software developers is the reduction of the gap between a system’s architecture and features and the intentional user’s workflow.
Each persona is the result of a symbiosis of actual users previously observed and interrogated to each user group. (Lerouge et al., 2011)

Real interaction designer’s decisions are based on what the user is trying to achieve. (Cooper, 1999)
According to Cooper (2003), personas are described as a gathering of realistic representative information which can include fictitious details destined to a more accurate characterization. The persona composition can be based on imaginary information, demographic and biographical characteristics of the personality under modeling. Personas have names like real people and can be represented through an image, or even a picture, to add realism. They defined the persona technique as part of a goal-oriented project concept.

According to the same source, personas are a powerful design tool also being the foundation for the consequent Goal-Directed design which starts with its definition and major goals. The core of this framework is based on the fact looking at things through the lens of the user’s goals allows to see the scope and nature of the design problem providing a unique and powerful perspective that opens new opportunities for creative design. At the bottom line, personas and goals are inseparable in a sense personas exist to achieve her goals and the goals exist to give meaning to a persona. Also, the more specific the persona is, the more effective it is as a design tool and consequently a communication tool as well. This happens due to the fact personas lose elasticity making it easier to identify their sills, motivations and desires. By doing this, they assume a bigger tangible solidity in the minds of designers and programmers, placing design assumptions in perspective.
The literature presented lacks information on employee experience mainly in what way of how firms incorporate their employees’ insights and individual service perceptions into the actual design in the case of new services or redesign existing ones. Therefore, the present study aims to unveil information on this topic. This is a topic that might bring some insight on how firms should develop and improve their internal services who directly contact with customers, therefore representing an important service encounter and moment of truth.

Finally, potential solutions for this challenge will be presented, as well as an improvement directed to the order placement process, pointed out as one of the main difficulties by several interviewed participants. This project aims to explore the gaps found in the literature review, by the means of a qualitative methodology. These topics will be covered in the following chapters.

3 Methodology

This chapter describes the methodology followed in the present study. To start with, the chosen qualitative method will be explained. Next, the research design defines the steps taken that enabled the conclusions of this dissertation to be accomplished. Lastly, the followed procedures are detailed including the sample design, data collection and data analysis.

To achieve the finest results, this study was conducted using a qualitative research supported on design science research methodology. To perceive the customer experience, this project involved semi-structured interviews and recorded interviews to relevant internal collaborators. During the data analysis, NVIVO software was utilized to assist the coding and analytical process.

3.1 Comparative analysis of existing approaches and reasons for the choice of adopted approach

Qualitative research uses a naturalistic approach that seeks to understand phenomena in context-specific setting since the "research takes place in real world settings and the researcher does not attempt to manipulate the phenomenon of interest." Hence, the analysis "unfolds naturally" in such a way there is no predetermined course established by the investigator as it would occur in a lab project or other controlled environment. (Patton, 2002) Qualitative research, broadly defined, means "any kind of research that produces findings not arrived at by means of statistical procedures or other means of quantification". Additionally, this method can attain the complex details about the studied subject such as feelings and emotions through processes that are challenging to draw through more conventional investigation approaches. (Strauss and Corbin, 1990, p. 17). Contrary to quantitative researchers that pursue causal determination, prediction, and generalization of findings, qualitative studies instead strive for illumination, understanding, and extrapolation to similar situations.

The kind of data desired for any research depends on the topic and access. Gathering rich data provides solid material for building a significant analysis as it is detailed, focused and full. They reveal participants' views, feelings, intentions and actions as well as the contexts and structures of their work lives. (Charmaz, 2006) Often it involves an intense jotting (Geertz, 1973) by writing extensive field notes of observations, compiling detailed narratives such as transcribed tapes of interviews.

Qualitative researches have one major gain over quantitative ones. Often there is the possibility to add new pieces to the research puzzle or incorporate entire new puzzles while gathering data, even in a late stage of the analysis. Hence, the flexibility of qualitative research allows to follow leads that emerge. Despite the fact methods are considered tools, they have significances. The way data is gathered affects the phenomena perceived, how, where and when the researcher will view them and what sense he will make of them (Charmaz, 2006)

According to Katy Charmaz (2006) perspective, this kind of studies of all sorts relies on those who conduct it. That said, researchers are not scientific observers who can disconnect themselves from values and beliefs by claiming scientific objectivity and authority since neither observer nor observed are part of a scene untouched by the world, having multiple variables generating stimuluses on each perception. Both researcher and participants have and make assumptions about what is real, hold knowledge on given subjects, belong to a certain social statuses and pursue purposes that influence their individual perspective standpoint and actions in

the presence of each other. Nonetheless, researchers are obliged to be aware about what they bring to the scene, what they study and how they do it.

Qualitative inquiry, also known as phenomenological inquiry, generate a different sort of understanding than does quantitative inquiry, also called as logical positivism that uses experimental methods and quantitative measures to test hypothetical generalizations. (Hoepfl, 1997). Another major difference between these two paradigms lies in the fact unlike quantitative researchers put an effort to disassociate themselves as much as possible from the research course, qualitative researchers have come to "embrace their involvement and role within the research". (Winter, 2000) This idea is also supported by (Patton, 2002), underlining the researcher's involvement and partaking into the research by arguing the constant and unexpected changes to which the world is subject, and thus the researcher should experience and present those changes to record results before and after.
Nevertheless, both quantitative and qualitative investigators have to test and validate the credibility of their studies. Whereas in quantitative research the reliability depends on instrument construction, in qualitative research, "the researcher is the instrument".

Design Science Research

DSR is broadly used in several academic disciplines. It is the main research strategy in engineering and medicine becoming popular in areas such as information systems. Focusing on improving the present – it takes the perspective of involved actors seeking to improve problems. This kind of projects often consists of two components: descriptive/explanatory and design/testing. The first provides a foundation for the second by generating a deep understanding on the filed problem while the second produces knowledge oriented to improvements. In terms of generalization, this method represents a design that can be transferred, within a certain application domain, to contexts other than the ones in which has been applied keeping its plain effectiveness.

Also, DSR concentrates on understanding organizational phenomena in context advancing research. It creates and evaluates IT artifacts intended to solve identified organizational problems, resulting in an advance of a field's knowledge base. (Hevner, Ram, March, & Park, 2004)

"DSR is a domain-independent research strategy focused on developing knowledge on generic actions, processes and systems to address field problems or exploit promising opportunities. It aims at improvements based on a complete understanding of the given context. It is not a specific method with fixed rules; rather, it is a strategy that can be operationalized in various ways." (van Aken, Chandrasekaran, & Halman, 2016)

According to (Pandza & Thorpe, 2010), any organization should not treat an artifact's introduction into their context as an engineering-like deployment. Instead, introducing an artifact into an organizational context triggers subsequent organizational or social change that most likely contributes toward reaching the overall goal or addressing the problem that motivated the DSR project trigger.

"Current thinking in design science research (DSR) defines the usefulness of the design artifact in a relevant problem environment as the primary research goal." (Gill & Hevner, 2013)

Another perspective on DSR utility implications brings attention to consider artifact organizational fitness in addition to its utility, with two types of artifact fitness in mind. One as maximizing economic utility function in a design context; the second works as a biological reproduction focusing on sustained utility over changing contexts.

The emergent nature of many design research projects is mentioned in Pirkkalainen, (2015), stating often DSR projects take place within complex setting with many stakeholders from research and practice members driving the project. Typically, such projects also have large-scale overarching goals beyond the development of the artifact. A crucial part of any DSR project is agreeing on topics that assure the design and creation of a novel DSR artifact in the first place.

The complex and dynamic context of DSR projects is also stated in Conboy, Gleasure, & Collina (2015) who propose to adopt an agile metaphor applied to DSR. Here the overall objective would be broken down into sub-goals reached in shorter iteration cycles in the form of "sprints" each with specific deliverables and subsequent evaluations.

In the light of what has been presented, DSR is applied to this project in a sense to not only understand the current context in terms of employees journeys and subsequent main pain points and frustration but also to create artifacts that solve those organizational problems aiming to improve those identified issues.

3.2 Method used in the project

The present study followed a qualitative approach focused on understanding the experience of the actors under research. Here the experience of retail's internal collaborators was analysed, considering their role and objectives, activities and workflow, interaction with other actors and systems used, and individual perceptions of what could be done to improve their overall professional experience.

Qualitative research can assume several functions as a social study since is it contextual (describes existing practices), explanatory (examines the motives and links among variables), generative (facilitating the advance of theories) and evaluative (assessing the value of what occurs). (Jane Ritchie, Jane Lewis, Professor of Social Policy Jane Lewis, Carol McNaughton Nicholls, 2013)

Qualitative coding, also defined as the process of describing what the data is about, was the first analytical step of the present study to move beyond concrete statements in the data to making systematic interpretations. As codes are iteratively defined and later refined, the goal is trying to understand participants' views and actions from their own standpoints. (Charmaz, 2006)

Qualitative research does not aim for generalizability, since its purpose is not about representing a population or aggregating the statistical effect of the generated results, but to be relevant to theoretical and conceptual development. (Charmaz, 2006)

Data Collection

Given the different types of qualitative interviews: structured interview, unstructured or semi structured interview and group interview, as formerly stated in this research the chosen was the semi-structured type, since is the one more appropriate to obtain the desired results settled to accomplish. In this kind of interviews, there is an incomplete script. The researcher may have prepared some questions beforehand, but there is a need for improvisation. The interviewer is the researcher or is one of the team (Myers & Newman, 2007).

In order to understand the journeys of the several employees and the workflow, semi-structured interviews and observation technique with the different stakeholders were conducted to develop this project.

Data collection process started by selecting the participants. In order to do that, the participants were chosen based on the odds of providing rich and relevant content.

Interviews

Qualitative interview is one of the most common and important data collection tools in qualitative research, being used in qualitative inquiry of all kinds. (Myers & Newman, 2007)

Semi-structured interviews technique has much of unstructured interviews value and requires all the same skills with the difference of having a general script as a basis – written list of questions and topics that need to be covered in the research in a certain order, often used to achieve reliable and comparable qualitative data. (Bernard, 2013) The interviews have been recorded whenever possible and later transcribed. Afterwards, they were analysed individually.

Interviews' length varied according to the experiences and interviewed. Taking into consideration the nature of the meetings, it depended on each behaviour in terms of what and how much of input they provided, and the average was around 18 minutes.

On appendix A, the interviews' script used as each interview' guide, is available containing all the questions that were placed. These followed an open approach, as the goal was to give participants the greatest possible freedom to explore the subject in order to attain the most relevant insights.

Interviews is a great way to learn about attitudes and values. (Bernard, 2013) Intensive interviews enable "an in-depth exploration" of a particular topic with a person who has had the relevant experiences (Charmaz, 2006), incorporating their own vision and interpretation about it.

Observation

This technique allows the comprehension of participants' work environment and behaviour in their individual comfort zone being the reason why this practice has a strong impact in a qualitative research like the present. It includes to gain a deeper understanding about the know-hows, restrictions, needs and pain points.

According to Patton (2002), observations take place in real-world settings and participants are interviewed with open-ended questions in places and conditions comfortable and familiar to them.

Sample Design

The sample of this study consisted of twenty-six (26) people and its specifications are explicit as follows on the table below. The sample is based on the research over different knowledge about the organization, with the final aim to understand the pain points of each role and activities to be mapped, as well as the internal communications among actors and systems.

Criteria used for the participants' selection were based on relevance and replicability. In terms of relevance, participants were chosen having into consideration their dependences and multiplicity of used tools and touchpoints. In a hypermarket like *Continente*, there are on average more than 200 people working, reflected in about more than 15 profiles.

The sample represented on the table below was constituted for Gaia Shopping and Maia Jardim collaborators.

Table 1 - Sample Specification

Data Collection	Quantity
Department Chief	6
Provisioning Operator	6
Cashier	8
Customer Service	6
TOTAL	**26**

The present sample characterizes the key stakeholders for the development of this project. The essence of qualitative research is realistic in such a way that involves analysing real individuals in their ordinary settings, rather than isolated. Therefore, sampling has also to take into account spatial and situational impacts besides the ones form each individual characteristics. Also, in qualitative research an enhanced knowledge of difficult human concerns is highly more essential than generalizability of results. (Marshall MN, 1996)

Data Analysis

As the research collected a great amount of data the goal here was to decompose the vast information blocks that were existing. Having this said, in a first stage, open coding was conducted, also known as an interpretive process through which data were broken down analytically, which purpose is to provide the researcher new insights by breaking through standard ways of thinking or interpretation of occurrences presents in the data. (Strauss & Corbin, 1990).

Registering data alone confers interpretations due to the fact researchers place a conceptual frame on them through our use of language and understanding about the world. Evaluating how a researcher collects data and which data is obtained it helps to locate them. Such analysis also helps when coding and categorizing since the researcher becomes able to place their emerging

analysis in its social context. Afterwards it is possible to make more detailed appraisal when coding data. (Charmaz, 2006)

Data collected was appropriately examined through affinity maps and clustering process. This classification highly helped to connect related topics. Through this exploration stage, it was possible to understand the main concerns and pain points collaborators feel.

The objective was to identify activities and goals organizing units of information (codes) that would allow to discover patterns. “Coding means naming segments of data with a label that simultaneously categorizes, summarizes, and accounts for each piece of data.” (Charmaz, 2006)

In an advanced stage of the coding process, further development of categories took place in which categories are related to their sub categories (axial coding). (Strauss & Corbin, 1990) In each defined code, the idea expressed by the participants was listed as quotes.

According to (Charmaz, 2006), axial coding can be defined as a type of coding that places a category as an axis around which the researcher describes associations and specifies the dimensions of this category. The objective is to bring the data together again into a coherent whole after its line-by-line coding fragmentation by the researcher.

Its purpose is to sort, synthetize and organize large amounts of data and reassemble them in new ways after open coding. (John W. Creswell, 1998)

The collected data was analysed according to certain considerations concerning the research objectives in order to match the research goals.

Defined codes were then compared and analysed, in order to establish connections between topics. The analysis conducted has identified some improvement opportunities to explore. Also, it allowed to map the different pain points expressed by the participants.

Throughout the data analysis, defined topics were constantly adapted and eliminated or created, as the information was emerging and analysed. In a later stage of the analysis, the comparison and review of the collected data allowed to get more reliable and robust conclusions.

If the case was a high number of participants mentioning some insight, the number of quotes per code could sustain a perception on the relevance or extension of the expressed idea, and is reflected on each employee journey and improvement suggestions systematized. A single mention is not a sufficient basis to discard or verify a hypothesis. In order to be verified and thereby considered as increasingly plausible, it must be indicated by the data over and over again. (Strauss & Corbin, 1990)

Having this said, to better analyse customer experience this study performed semi-structured interviews followed by a deep data analysis supported by the qualitative data analysis software NVIVO.

To sum up, in a first moment, this study aims the comprehension of several employee’s experience regarding digital tools and devices of the retail ecosystem. Afterwards, collected data was the foundation to characterize the customer journey of these employees and identify suggestions of opportunities for new or restructured workflows as well as the improvement of actors’ or activities’ interaction.

Also, in order to assure the collected information embodied correct and accurate results, after schematizing gathered data in the several visual representations in the previous section, another interaction with participants occurred. This consisted in sharing the elaborated results with some individuals of each role between cashier, customer service operator, provisioner and section chief, in more informal moments than in interviews' asking for feedback and criticism. By doing this, it allowed to validate the elaborated results directly with who was involved, and make some small adjustments.

Ethical Concerns

The interviews were conducted with collaborators at Continente Maia Jardim and Continente Gaiashopping. In terms of ethical concerns, anonymity and confidentiality were taken into account so every identity remained undisclosed. Having this said, participants' information remained private, with each interview duly identified with the respective participant, merely with an analysis facilitator purpose. For each interview, voluntariness of the contributors was crucial in order to obtain the best involvement possible enhancing and enriching the final results. Lastly, during data collection process and when asking the participants about their workflow and personal interpretation, it was always kept in mind the individual respect for each provided insight, no judgement done.

4 Results

This chapter presents the most relevant result generated from the data analysis. The first findings result from the codification and analysis of the conducted interviews, where methods of Design Science Research were applied.

That said, and according to Design and DS processes and elements pointed out by Peffers (Peffers, Tuunanen, Rothenberger, & Chatterjee, 2007) the first element in order to apply this framework to any project is dedicated to problem identification and motivation, as already explained in chapter 1. This step implies the definition of the research problem and justification of the value of a solution. This stage is used to have a direction to develop an artefact that can effectively provide a solution. The value of the solution accomplishes plays a double role by generally motivating the researcher and the audience to pursue the solution and to accept the results, helping to understand the reasoning associated with the researcher's understanding of the problem. Following the problem contextualization there is the definition of the objectives of a solution from what is defined and the knowledge of what is possible and feasible. After definition of problem and objectives, the third step dedicated to the design and development stage follows. This consists of creating the artefactual solution assuming whether the form of constructs, models, methods, or instantiations. The artefact's desired functionality and architecture which is presented in the present chapter.

Next, application of the efficacy of the artefact is performed. Generally, this could involve its use in experimentation, simulation, a case study, proof, or other appropriate activity. Due to project limitations in terms of time and resources, this step could not be implemented, being referenced for future research. As a consequence, the fifth step of evaluation including observation and measurement of how the artefact supports the problem is also constrained.

Finally, the last activity involved is communication of various aspects such as the problem and its importance, the artefact itself, its utility and novelty factor, the rigor of its design, and its effectiveness to researchers and other relevant audiences, such as practicing professionals, when appropriate. The present document is what support this communication.

Also, all the conclusions here are based on the coding performed at NVIVO presented in the appendix D. These tables reflect what main topics were coded and analysed as previously mentioned in the methodology chapter, each with one respective table.

That said, in a first stage, definition of personas and respective customer journey AS-IS and experiences were mapped. The objective was to discover the main critical points in which the employees felt the experience was not totally satisfying. In a later stage, customer journeys TO-BE being presented in appendix section, with the major previously identified pain points solved and experienced in different ways, in order to minimize those struggle points that highly contribute to employees' frustrations.

During the project development, some solutions focused on customer experience were outlined. As previously mentioned, the software utilized to support this research study was NVIVO. This tool has permitted to organize topics under specific nodes through which the research was conducted. Having this said, as it is possible to realize from the image below, there were seven major criteria studied: activities and tasks, actors involved and main interrelationships established, artefacts through which the participant execute a given assignment, bottlenecks that represent major pain points or stuck points in the overall process or in one piece of it as well as feelings addressed to each activity. In order to explore some personal insights provided, a sec-

tion named improvements suggestion was also created. To better outline each profile participants were asked what are the key capabilities the role requires. Also, systems evaluation and utilized systems by each individual were other topics under study.

This categorization allowed to group the collected data through common individualities that later personified the four different personas further presented, each one corresponding to each employee role. This effort allowed to gain a deep understanding on the profiles journeys and experiences, fulfilling in this way the initial goal of this research.

In the screenshot below, the expanded set "Metacategory" reflects the conductive division of this research consisting in the several profiles understudy. These nodes include the totality of the data collected from the participants and it should be noted that all presented results were retrieved from queries between one node of the metacategory and the other variables.

In order to map the different journeys and experiences, this section comprises several illustrations relatives to each employee role. The diagrams were able to identify the main activities through each employee goes every day and understand the impact and effort each one involves. Also, the emotional status in each component of the workflow is also identified, which allowed to detect major pain points each employee faces whether caused by systems or other reasons namely interpersonal issues frequently related with peers or boss.
Is it relevant to highlight these illustrations were fundamental to understand in depth the employees' experiences embodying valuable documentation of hypermarkets' context. The visual component plays an essential role in terms of presenting all the key insights collected from the participants. Visualization is absolutely central to the communication of complex information in a way that is rapidly absorbed and conveys the necessary insight. (Rohrer, 2002)
Having this said, this illustration section accomplished the second and final goal of the present study, mostly dedicated to mapping different realisms. Also, in every journey diagram every activity that involves an interface or communication artefact, has identified the name of the respective tool attached to the symbol in the "section" of systems.

As previously mentioned, four profiles of collaborators were studied in this study:

- cashier operator;
- customer service operator;
- department chief;
- provisioner operator.

Having this said, each role will have their overall daily journey and experience mapped accompanied with a persona detailed description. It is relevant to highlight every conclusion presented in this section result whether from several participants' insights or from the importance and impact of the insight entailed, taking into consideration the surrounding context variables. In the following pages, each profile main implications and insights are further developed.

Cashier Operator

For this role, there is a very common scenario multiplied by many Continente stores across the country that is on one hand, young operators working part-time as cashiers to earn some extra money for personal expenses or support study costs, and on the other hand, senior operators with a long career at Continente stores, that has been allocated in more than one store and who started working when they were single in their mid-20s.

For that reason, it was relevant to outline two different personas for the same function - Rita and Emilia -, instead of merging these two groups resulting in a character that would not characterize the reality at the store and therefore would embody a forged scenario.

To start with, there is Rita Neves who is 21 years old, with 5 months of experience working 20 hours a week. In terms of demographic and behavioural description, Rita has moved from her parent's home in Guimarães to study Marketing now sharing an apartment in the university district with 3 more young students. For this reason, time with family is highly appreciated placing weekends in one of her top priorities. Her family has limited financial resources, so part-time scheme allows her to balance responsibilities while earning some money to help pay her studies. She perceives cashier function through a mid-term perspective, at least until the end of university and truly believes hard work and persistency are key to assure a successful future and is quite organized managing her agenda. Owns high technological competences and likes to claim herself as an environmentalist defender who loves nature and hiking and not so much fond of cooking and household care. At the moment, is in a relationship, her personality is more like an introverted one and curiosity is also one of the things that portrays her the most.

Rita's main pain points and needs are highly linked with systems' obsolescence, products' weight at the checkout, high dependence on the supervisor when POS (register machine) is on pause which has a negative direct influence in her individual productivity result.

In order to respond to these statements, some potential solutions for the above mentioned problems would be more efficient instore processes in terms of returns and price tags, stronger digital services – screen, scanner, leading to no paper waste, creation of handy mobile scanner for heavy products to avoid lifting the products, faster Retek system, consistency across stores' procedures. Also, an improved linkage between customer service and cashier departments would be a significant advantage once many of the incidents cashier department originates end up being resolved in the customer service department, which proofs that if cashier operators had any sort of training to pay more attention to certain details, customer service team would have their workflow more efficient and oriented to problem solving. Intelligible coupons are another potential solution, meaning anytime a product has a promotion associated, the register machine would automatically detect and apply the discount on its final price, without having to ask for coupons, whether on the app or physical, at the end of checkout process.

On the other hand, there is Emília Santos. She is 44 years old, has 21 years of experience working as a FTE – full time employee, from Valongo. Married with 1 son living in Switzerland for 3 years now, has worked in different Continente stores since her first job in a local grocery. Usually takes the public transports to go to work and lives near the city center. Her husband works in security by shifts making time together highly appreciated. Currently, is enrolled in a volunteer community group every Wednesday night and making deserts is one of her hobbies.

In terms of technological capabilities, is a basic user and gets confused if the job requires lot of these skills. Standing during 8 hours per day years has given her strong back pain and an increase in graduation of the lenses. Animal lover owning one cat and one bird.

Emilia's main pain points and needs are, similar to Rita's, systems' obsolescence, high dependence on the supervisor when POS is on pause, influencing negatively her individual productivity. Also, dealing with unregistered customers due to the high dependence on customer service team because the register has to be performed by them who can be busy as well, and difficulties to read due to small screen size.

Possible solutions for Emilia's frustrations would be a more efficient price tag procedure, touch screen POS, bigger devices and checkout till, screen and scanner, faster Retek system, increased autonomy and increased ergonomics to address the amount of hours standing.

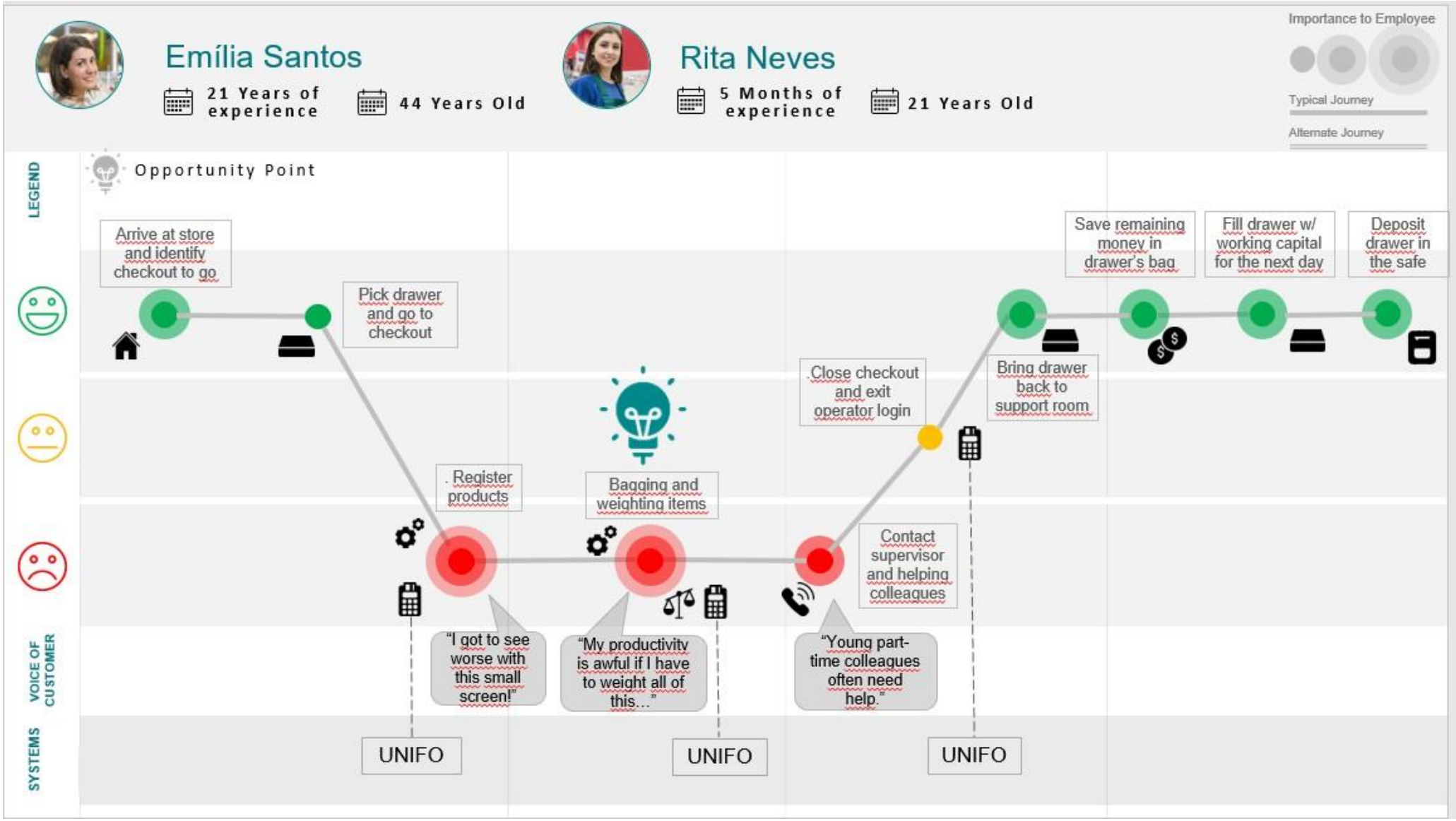

Figure 4 - Cashier Journey

Employee Journey

Despite the differences between these two personas, the journey made by each of them is quite similar. Having that said, she initiates the workflow by consulting the information to which checkout should she work in with the supervisor. As the checkout is variable, so is the drawer with the working capital to work with during the shift, of 101 euros. Then the products registration is the core task of the day where cashier operators spend most time in. Here it is possible to understand that dealing with customers can be a difficult task.

The cashier closure is done with all the initial steps backwards, by closing the checkout and logging out of the system, bringing the drawer back to the support room and saving both the drawer and the remaining working capital in the safe.

In this journey, it is to note two steps that require major attention for the amount of effort and relevance of the task: register products and the need to contact supervisor during the shift.

About the context of registering products, it is a complex and sensitive task since it's the moment of direct interaction between the operator and customer and customer service is always a challenge. Here the major obstacles that take place include:

- Printed coupons even when electronic invoice service is selected. Nowadays is clear the resources' waste awareness, when it comes to paper and plastic, joined with the fact the majority of people rather digital solutions for the fact it is safer and longer lasting.
- The need of weighing products highly affects collaborators' experience in the sense their directive is to call the supervisor for them to weight and deliver it to the cashier. It is relevant to mention Sonae takes the motto *"improve our work"* and continuous improvement seriously, so every employee has metrics and KPI's to fulfill with. Despite the directive, when there is the need to weight any product, the most common scenario is them to go to the nearest scales which influences negatively the individual productivity, and by consequence decrease the odds of getting internally compensated.
- Bagging can also be a bottleneck for operator's workflow due to the fact it highly depends on the customer being attended, age, patience and other circumstances. This fact proofs cashier function requires a lot of observation skills, to avoid misjudgments and unpleasant situations with the customer.
- Price divergence occurrences also are a factor that increases each customer handling time, and because of that several cashiers have mentioned if the price tags procedures inside the store had been more efficient and correct, that would reflect upon the checkout moment.
- At last, checkout devices such as the scanner and the screen many times do not work at the first time and are "too small" according to some cashiers, having to scan more than once the same product over the scanner. There are cases where this caused an increase in the lenses' graduation.

In the context of the necessity to contact the supervisor during the shift, there are as well some major implications:

- It involves a significant waiting time since the supervisor can be busy as well and beyond that, he or she can be far away having to go for a long way originating a longer queue and a clear decrease in productivity since the time is constantly counting.

- Also, whenever a cashier operator puts the system on a temporary pause to hold the time counting and avoid having long and nonrealistic times, whether because the customer is searching coupons or went to pick another article to purchase, to return to the purchase the supervisor must introduce a specific code in the system only known be her/him, sometimes multiplied by several checkouts, taking into consideration there are about 20 to 30 checkout in each store. This directive strongly emphasizes the power and control of the supervisor taking out great autonomy from the cashiers.

In order to propose a potential scenario to minimize the difficulties felt by this persona, a visualization of a customer journey TO-BE is available in Appendix E.

The differences in this context are addressed to the registration of products as well as the high dependence on the supervisor during each work shift. In the first moment, products' registration is executed through a touch screen POS. Concerns about the ticket printings, even when electronic invoice service is required would be mitigated as everything would be delivered through the app, in the partnerships section. To address the latter referred issue, concerning supervisor dependence, cashier would be given bigger autonomy while attending customers. Supervisor would be near the store checkout area more often and each operator would be given a code to resume to the purchase whenever one is paused, for internal rankings purposes. This code would be generated in Unifo by the customer service department, who are in charge of this system back office and often introduce data in the back office system interface, that goes directly to the front office Unifo system at each checkout. This way the safety concern of every cashier operator being able to have a general store code is addressed, and linked in a feasible way with SAC team. To sum up, this measures would increase the satisfaction of the whole experience of these group of employees and result in optimized customer attendances.

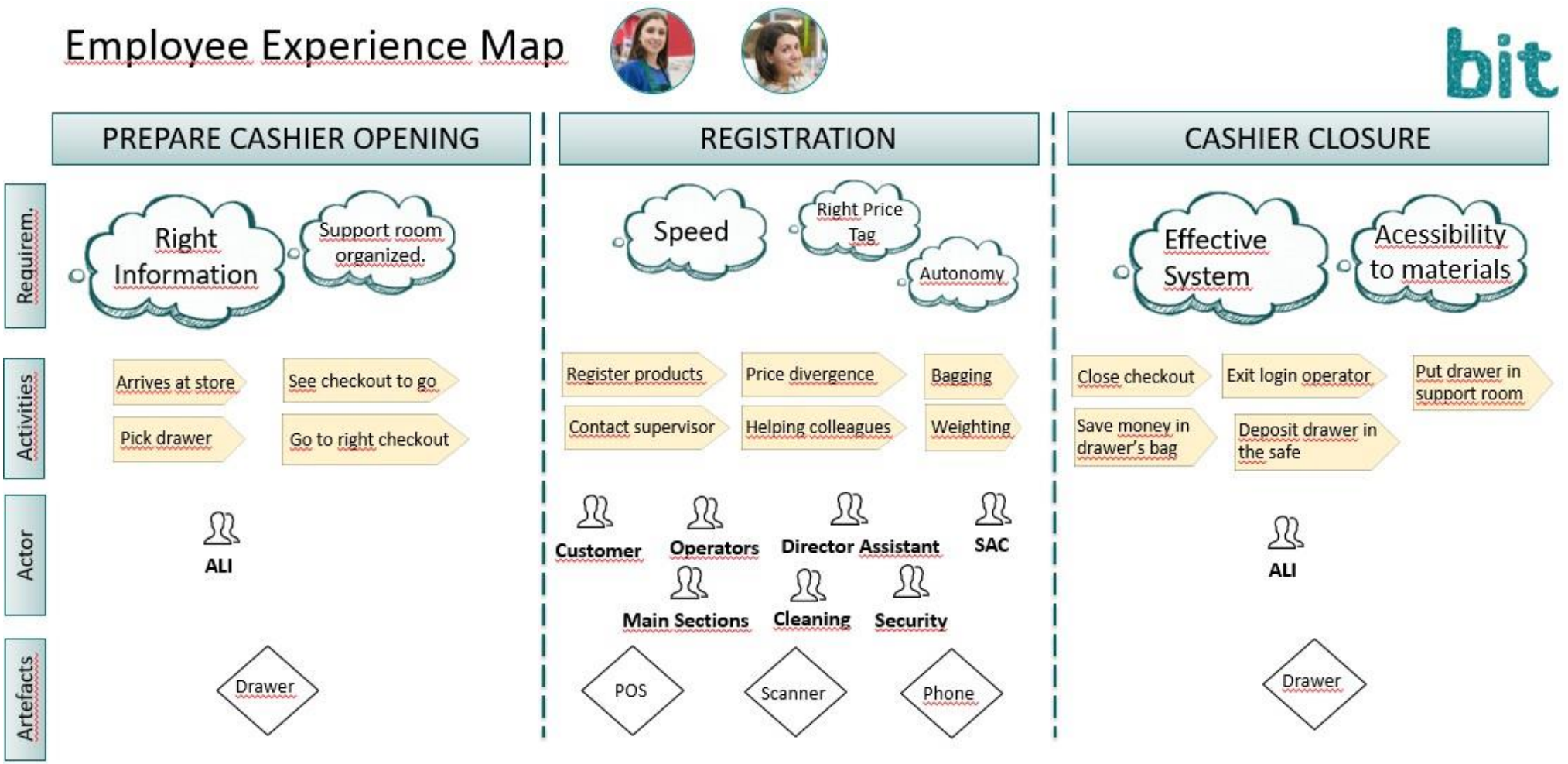

Figure 5 - Cashier Experience

Employee Experience

To sum up, there are three major moments in the cashier's workflow: preparation, registration and closure.

In preparation stage it is important to have right and clear information accessible and support room organized in order to begin the activity as smooth as possible, with all the required resources available. Core work is performed during registration period, where all customer purchases are managed which also include the majority of incidents as well. As expected, major interactions with other employees, systems and artifacts occur in here. System speed, autonomy and right price tag procedure guarantee are important experience requirements to be fulfilled. At the end of the shift, the operator logs out of the system, performing the initial process backwards.

It is relevant to highlight the interrelationships this role usually establishes. Every checkout has a phone that can only make internal calls. Being the ultimate contact with customer products, besides them, it is common to relate with operators for any price issue, ALI *(= apoio à linha interna*), also known as the cashier supervisor who often shares any relevant information with the director assistant, that only relates as the last resource in case the supervisor is not available. In the event of any unexpected event or alarm issues, cleaning and security team are contacted, as well as the three main sections to check any product reference or price. Customer service team usually deals with unregistered customers, price divergence, invoices above 100 euros. Although it is an independent department, cashier workforce is common to establish a strong collaboration between operators, for instance to weigh items in the self-service checkouts.

As this profile interacts a lot with customers, skills such as calmness and dynamism are highly required since there are several situations where customers get anxious or stressed out due to waiting times, price issues or other factors that influence directly clients' state of mind. For this reason, is common for cashier to provide explanations about promotions or coupons while being efficient and organized in the checkout, attentive and mindful to every customers' needs. Also, delicate products such as perishable ones require caution and every registration must be handled with attention to not register in false any product since that data is registered in sales reports for future analysis.

All these aspects proof sympathy, people management and observation are capabilities any cashier should have present on a daily basis. There are several implications in what comes to queueing: solo waiting feels longer than group waiting and anxiety makes the wait seems longer. The fact others are also feeling the pain may reduce customer's anxiety of thinking they made the wrong choice by going on a busy hour or that checkout. On top of that, people also tend to talk to each other providing a distraction from the length of the wait. Customer facing employees must have training to observe the effects of anxiety and find ways of conveying encouragement. (Carravilla & Guedes, 2018, sl. 46-48)

In respect to systems evaluation there are some insights relevant to point out:

- Negative: slow system and small checkout till; small and unstable scanner making it difficult to read the products at first delaying total attendance time. Also system obsolescence including TPA confusing default payment mode (credit option first and then

debit), touch screen and keyboard keys cleared were mentioned. Small screen that originated an increase in lenses' graduation. Lack of autonomy when system is on pause is pointed as one of the main aspects for negative system evaluation.

- Positive: single queue system – queue distributed by the operators -, came to solve some complications from a huge line across the store in the corridors, avoiding confusions and abstract decisions such as averting one checkout due to superficial or visual aspect.

Table 2 - Cashier Improvement Suggestions

System / Issue	Improvement Suggestion	Advantage
Coupons	Send by e-mail or through the app partners' coupons when the customers ask for electronic invoice service.	Paper savings and avoid to deliver several papers to customers.
Retek	Speed up processing power and retrieval capabilities in the front end at cashier line of operation.	Time saving in several daily tasks, with high impact on products registration.
Staff Training	Experience an experimental time in customer service (CS) team since both services are highly linked (incidents in cashier line always ends up on CS Team), in order to understand overall implications end to end and avoid them.	More efficient cashier and customer service attendance and improved productivity. Higher orientation and application of effort;
POS/ Checkout	Touch and bigger screen, bigger scanner, keyboard and checkout till. Handy mobile scanner for heavy products.	Faster and optimized workflows.
POS	Possibility to return to the purchase with an internal code, collaborator number or other instead of waiting for the supervisor to arrive.	Higher autonomy and improved workflow and productivity metrics.
Price Tag	More attention and rigour in price tag procedure.	Avoid customer incidents by paying the wrong price due to an internal error.
Store Return Processes	More explicit and clearer for both customers and operators who sometimes deliver return ticket for books/lamps and those articles not returnable when they should not.	Decrease of complaints and increase of loyalty.
POS	Electronic invoice service with cash payment: keep change information in the main screen instead of showing it, followed by "electronic invoice" and disappearing after. The value is displayed in the customer screen, at the right of the cashier which makes it confuse to manage.	Improved checkout process for the cashier enabling change delivery.

- **Provisioner Operator**

Carla Teixeira at the age of 48, is divorced with one son, aged 21 studying computer science, from Guimarães. Since she has moved to the city from her parent's home still single and got a job as a replenishing operator, she has worked as a full time employee for 25 years, in different Continente hypermarkets. Carla usually takes an active role in community events with her intimate circle of friends. Often participates in community raising funds initiatives often for catholic poverty missions which is something quite close to her heart. She is also involved in the church choir every Sunday. In what comer to technological skills, Carla is not the most qualified user, and does not like completely digitized services, always preferring to have an interactive service.

Carla's main pain points and needs are related to the consultation of sales history too time consuming for an intermediate step of a broader consultation process and the fact of having too many order systems for the different order placement. Also, IGL – *Implantação de gama no linear* is another struggle for the time it takes daily and stock excess occurrences more applied to perishables section, often resulting in monetary waste.

Possible solutions for Carla's frustrations would be the order systems standardization, faster and simpler Retek system with less passwords, and finally the possibility to return furniture goods to supplier to avoid excessive large volumes in the warehouse for long periods of time.

Provisioner worker has a significant number of operators to manage so this role highly implicates dynamism, supervision and people management skills as a good knowledge on the profile of each collaborator is essential to make a good fit between them and the right places and moment. Attention and control over ordered products in the warehouse, hypermarket stores have an enormous range and space so losing some products' reception is easy – not finding products already received has happened due to this kind of issues. Having attention to these details is key since that will ensure a store smooth operation and positive customer service.
Certain products more sensitive also require some understanding to handle order placement and manage existing stock, as it happens with perishable products, sometimes with only a couple days of validity. Motivation, learning ability and multitask are also another set of skills cited as necessary to assume this role. A great sense of responsibility is involved to perform stock counting, inflow and outflow of stock, occasionally with some mistakes. Moreover, this profile implies dealing with many goods' listings and schedules otherwise orders do not arrive on time originating ruptures in the store.

Provisioner operator have expressed their thoughts in terms of systems evaluation. Some of the participants mentioned training would be of great value due to the multiplicity of options inside Retek system, for those cases when a regular operator got promoted to the provisioner role with little previous contact with the system for the new assigned activities. Also, Retek is indicated as a slow system when consulting mainly promotions with an average of 5 minutes of results retrieval, sales history or other stores' stock.

On the other hand, IGL procedure allows to identify products not in the store even for those new not exposed in the store yet but already in the warehouse to be placed briefly. Ruptures' audit is not possible to have visibility on these missing products, despite the considerable amount of time it takes. Workflow is a general appreciated system.

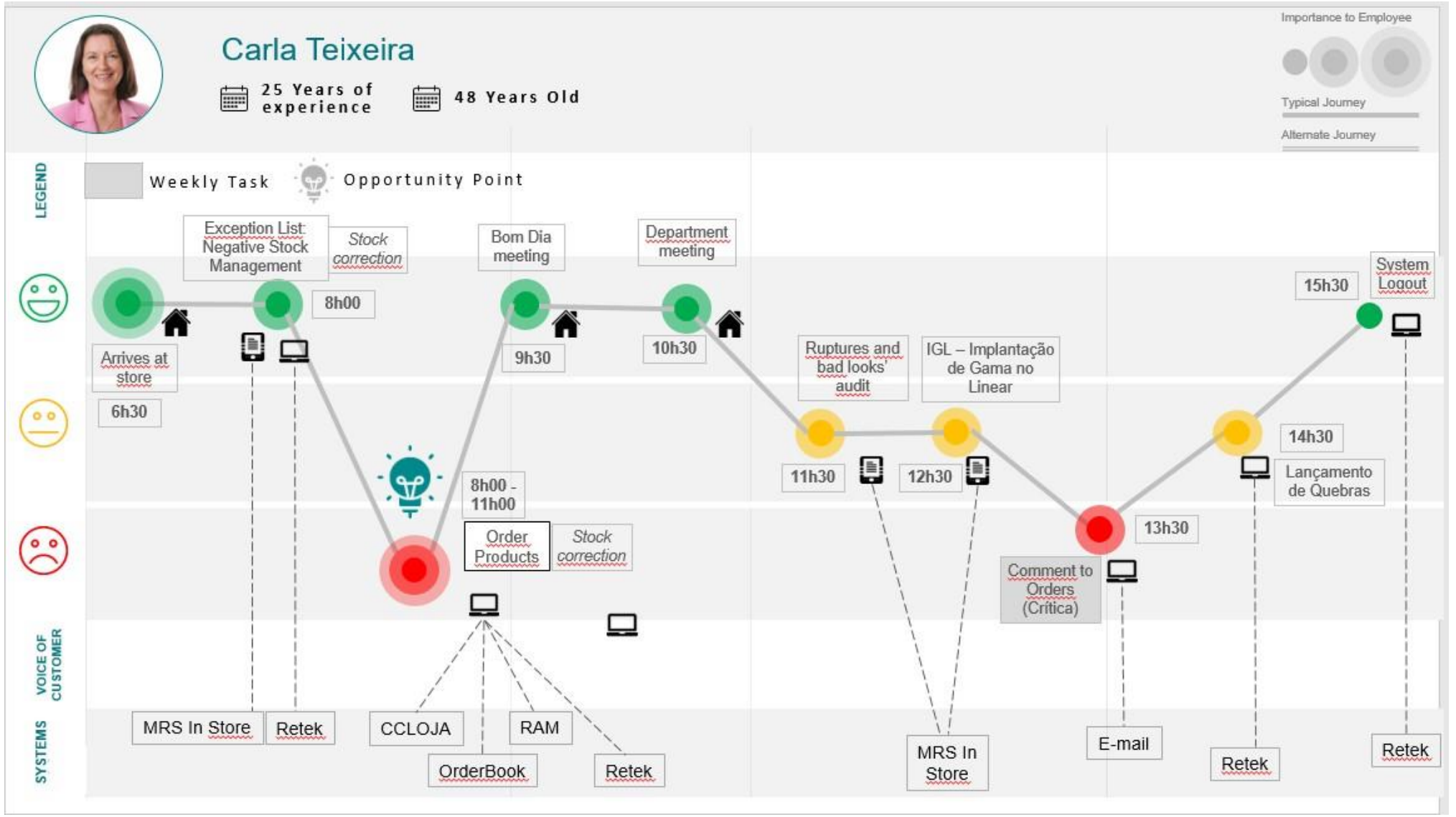

Figure 6 - Provisioner Journey

Employee Journey

Looking to Carla's daily journey, it is possible to state her morning routine begins with the exception list. This list is to handle the articles with negative stock in the system, that by mistake entered in the warehouse through another product, were sold by another article, or have arrived from the supplier as another product. In those cases, often are sold articles that are not logged in in the system, and hence not recognized originating negative stock afterwards. Next, *Bom dia* meeting follows where key information about the previous day are shared within the director and medium managers, in terms of problem report, quality assurance, and any other relevant communication the top management wants to deliver to the rest of the workforce.

Ordering product is one major task of the provisioner operator since assuring stock is their ultimate goal. Hence, placing the orders should be as agile and operational as possible. Currently, this process is somewhat confusing and time-consuming. This happens because provisioner operators have a multiplicity of systems to place orders of different products and departments. In fact, meat orders are placed in CCLOJA system; fish orders in RAM with a differentiation taken into consideration between priority fish, those fishes that cannot be out of stock, which order has to be done 48h ahead and regular fish ordered 24h ahead; fruits are orders in OrderBook, a system inside Retek; and general orders are placed in Retek, except when there are campaigns and products are blocked in here, and have to be ordered through CCLOJA.

After this, provisioner perform ruptures and bad looks' audit, checking every corridor and every shelf, pick ruptures – products labeled "article temporarily unavailable" – with PDA to check the respective warehouse stock.

Next, range implantation on the linear (IGL in Portuguese for *Implantação de Gama no Linear*), is executed. This procedure consists of picking every article in the store to generate a file with those articles that were not picked in order to identify which articles are missing out of the range. At times, PDA does not recognize the picking assuming the store does not have that article.

When that happens, the operator needs to check the article in the warehouse if it is not in the store – can be in a different location than the usual in a promotion for instance or in case the operator gets required by a customer. In case if it is found is picked out again; otherwise is necessary to rectify the stock in the system (Retek) or justify in the generated list the reason why those articles were not there. If the next day happens to be ordering day, Retek automatically places them based on the numbers. This task is very important and takes a significant amount of time to accomplish – there is an IGL daily calendar with the assigned products to check.
Throughout the day, the job of correcting the stock is recurrent and kind of a transversal accountability of provisioner workflow.

At last, at the end of the day, provisioner needs to launch the wastage products for those products that are not on good sales conditions due to damaged packaging or similar but still functional or consumable. Instead of going to a garbage dumping, there are a lot of products donated properly in the system, with the possible institutions registered, type and quantity of product. The day is concluded when the system is logged out and the laptop shut down.

In order to propose a potential scenario to minimize the difficulties felt by this persona, a visualization of a customer journey TO-BE is presented in Appendix F.

This one would be enhanced by having one common interface to execute order placement for the different kind of products, that will be further explained in the last chapter dedicated to future research. By doing this, this part of the journey would be much simplified and accessible for any newcomer employee. Additionally, comments to orders typically designated as *criticas*, although almost weekly activities, it is an activity performed only "by the book" with no major effects afterwards. Here, would be taken in consideration with more rigor by the commercial team motivated by direct guidelines between instore enterprise team and commercial team.

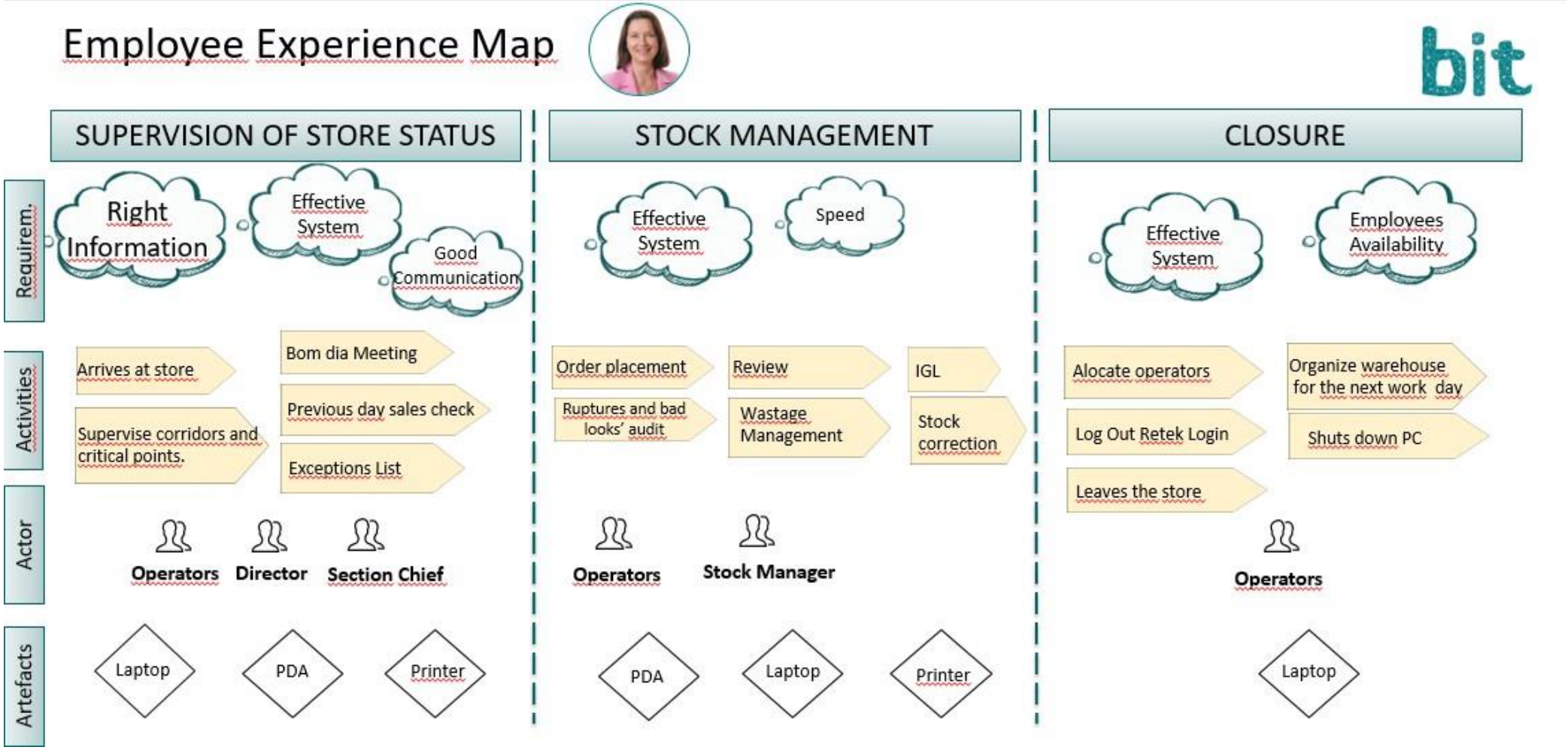

Figure 7 - Provisioner Experience

Employee Experience

Looking at Carla's overall experience is it clear the division and grouping of activities: store supervision, stock management and closing. In respect to store supervision, it is important to have available the right information and effective system for the exceptions list handling and last day sales check; and clear communication skills for the meeting with the board and store director. In this moment the interaction among different collaborators is high and diversified, since in all of these tasks, operators from the different sections, chiefs of section and store director have an active partaking. The artifacts utilized are the laptop, PDA and mobile printer.

During stock management, since it mainly encompasses order placement and system based activities it is crucial the system is functioning well and fast. The intervenient are mainly operators from the different sections and stock manager who supports the ordering process. Concerning the involved artifacts, they consist of the same above mentioned. At the end of the day, about an hour before the store closure the provisioner has to ensure some operators organize and clean the warehouse to facilitate next day job.

It is to note this role performs an autonomous job with no higher dependences on other teams or employees, being the closer relationships mainly with customer service team to handle stock issues driven by returns.

At times, when some products from any of the main sections is missing, in order to avoid accomplishing with the promised service, is quite common to internally buy those missing products from the store handled with an authorized money transfer between departments. For instance, when cafeteria supplier does not deliver products on time for the perishables section.

In an attempt to systematize what have been expressed by the participants in terms of system and processes improvements, taking into consideration their daily workflow and major bottlenecks, the following table presents that information compiled.

Table 3 - Provisioner Improvement Suggestions

System / Issue	Improvement Suggestion	Advantage
Retek	Speed up processing power and retrieval capabilities. Simplify authentication process generating a decrease in productivity.	Time saving in several daily tasks, with high impact on promotions and articles consultation.
Order Systems	Perishables department - Standardization of ordering systems instead of working with 4 channels for the same task.	Process streamlining; significant time and effort saving; task transmission to more department collaborators if need be.

Over Stock	Bazaar department - Ability to return to supplier bazaar stock mainly China imported in order to decrease stock accumulation and big volumes in the warehouse complicating general space management and arrangement. Outflow campaigns to avoid over stock imported.	Improved work conditions and warehouse management; streamlined inventory.
Retek	Delete the inactive fields on every screens of Retek since it creates great visual noise, interest and time spending trying to understand for what it is meant.	Simplified tasks in a system that serves as a basis for everyday use.
Workflow	Informative message with erros, does not open nor leaves notifications list, unlike the others. Only by sending the message to the personal email it disappears of the screen.	Take visual noise out of the screen leaving room to what needs to be handled.

- **Section Chief**

For this collaborator profile, it is to note the sample was constituted by different department chiefs since there are 3 main sections in any Continente hypermarket: food, non-food and perishables. Therefore, there are specificities of each department due to the nature of products transacted and by consequence specific work processes, systems and logistics. Considering the time available to perform this analysis, the following persona embodies the 3 chief of section, covering the total individualities that exist.

This chief persona is embodied by António Freitas, who is 53 years old with 24 years of experience working as a FTE having under his supervision on average 58 employes.

António has worked in different Continente stores in Porto and has been leading big teams for more than 15 years. His lifestyle is settled and cost-moderated lifestyle with little fluctuations throughout the years. Began his career at Continente as a regular operator still single and got several promotions till head of department. Lives with wife, who works as a receptionist in a small enterprise, their two children, aged 22 and 27 one working in a restaurant and another studying computer science and his retired mother, valuing a lot family time.

His attitude towards work and management practices is formal and marked by former assumptions and rigid hierarchy. Works in shifts and most of the times between 8 and 10 hours which makes it difficult to manage personal time management ending up struggling family' integrity. Owns two rescued dogs and a cat at home and loves football and does not miss one match for anything.

Major pain points for António relate with article's history promotion file time to process, workflow changes generated by big campaigns, sales check on Daily kaizen little functional and time consuming, seasonal overload of systems, imported stock excess from house campaigns storage, overstock on perishable products, price divergence occurrences, specific sections to tidy up, general network unavailability and total system blackout on Wednesday lunch period.

Some potential solutions for the stated problems can be a merge between perishable department's sections into one in daily kaizen software to check global sales in only one screen, faster Retek system, standardization of order system and creation of outflow campaigns for imported overstock. Dynamism with fast problem solving to unexpected events is critical, otherwise store operation will be affected resulting in big losses of money to the company or dealing with store layouts. Also, some articles imply some technical knowledge. Is important for the chief to cover those question, although not mandatory but a differentiation factor when it comes to customer service. Besides, in bazar department it is important to know how to sell – unlike food section, where customers acquire pasta and rice for sure, which is not applicable for a sofa or kitchen table, and that is reflected on the sales.

Since the section chief has in charge a large team, a fifty-eight people team on average, it is essential to be mindful about any employee schedule change and know how to say no being always reasonable. Similarly, having a proper planning of activities and priorities in order to keep a clear work direction and not be diverted by unexpected happenings or jeopardize the overall work. Also, run the team in terms of people allocation and schedules, so people management, multitasking, organization and observation capabilities are highly demanded for this position. For similar reasons, supervising is part of every day of a chief, as assuring everything is under control and according to what was planned is decisive for the store operations. Additionally, having a good relationship with the team is something every chief tries to guarantee, since anything missing on its command has to be covered by him or her, so often collaboration together with the team occurs for them to feel supported while setting the example and motivating the team. Due to the physical demand in a fast pace environment the role requires, coupled with the amount of work hours per day, between 8 to 11 hours, motivation is also highly necessary.

In what comes to systems evaluation, section chief stated Retek slowness is a recurrent problem, due to the amount of data it has storage. Most participants stated almost every task could last much less time than it is currently taking. Additionally, inactive fields in Retek interface are not appreciated since that visibility creates unnecessary buzz and curiosity with no purpose after all. In respect to CCLOJA, section chief feels it is not being applied for its primary goal – to better manage products distribution across the different stores, according to its size and sales, in a fair and rational way, assigning this accountability to stock managers from the commercial team instead of each store to require a given amount. Instead, several chiefs claimed acquaintance relationships have higher impact than those logical criteria, resulting in stores with unproportioned and unreasonable amounts of products. Regardless of the store needs, most of the times stock manager does not approve amounts requested.

Taking into consideration the workflow of department chiefs, their core work is not focused on the systems, mainly using them for inventory and occasional price tags printings, so the majority of participants claimed system component is not critical and is interpreted as adequate and satisfactory, for those teams where orders are mainly automatized. Perishables chiefs do not share the exact same opinion as the orders of the different subsections have to be regularly placed almost in an everyday basis through 4 different systems.

Positive system evaluation: zoom is generally valued, since it offers a much quicker and trustworthy experience than Retek to perform sales analysis. It allows the user to have visibility on monthly articles' report in one single document as well as on other stores performance while saving time and resources due to the efficient use of paper.

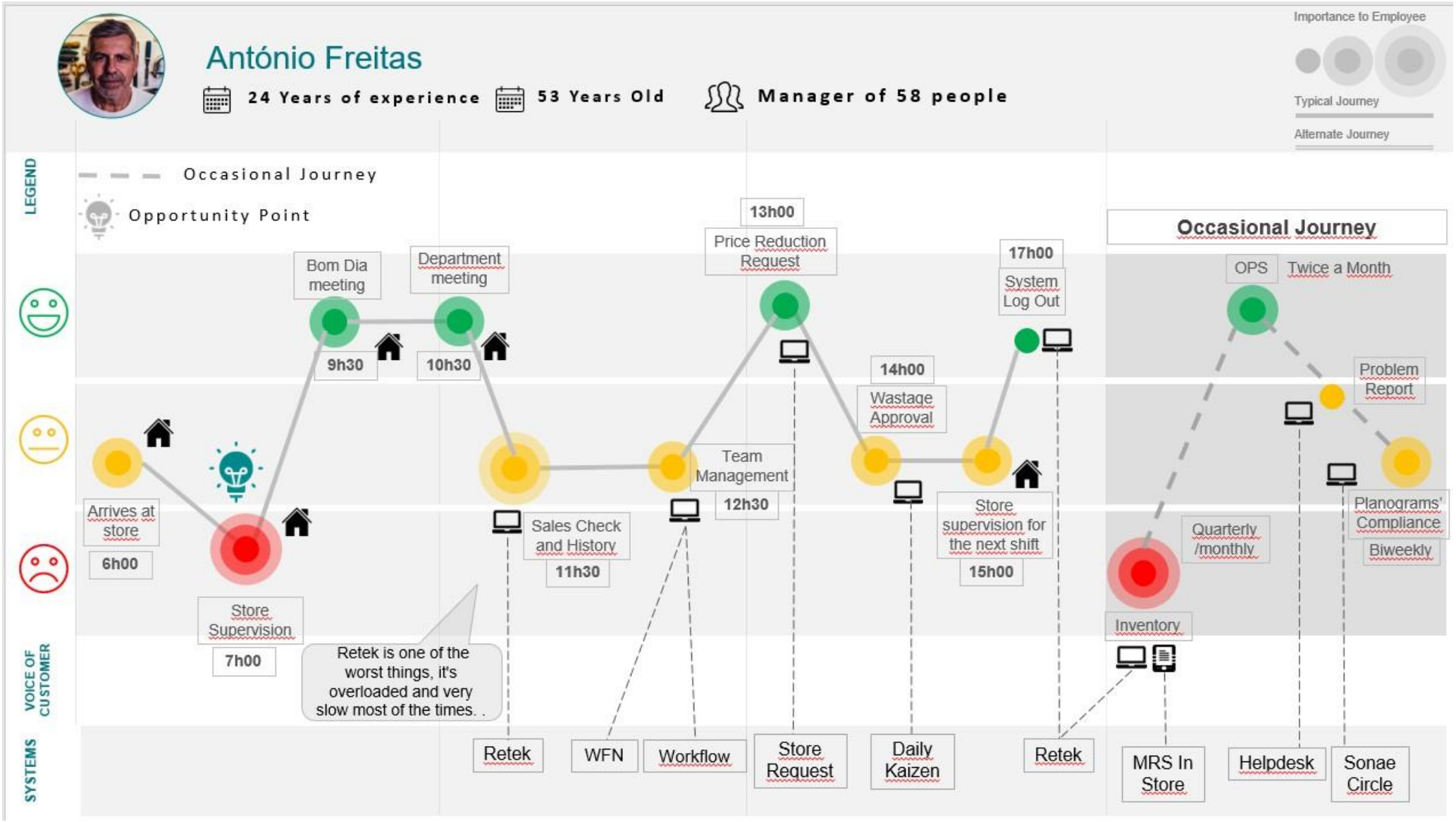

Figure 8 - Section Chief Journey

Employee Journey

As it is possible to interpret from the figure, Antonio's journey goes through several emotional stages throughout the day. Before the store opening, this collaborator has to ensure several requirements of good functioning and work conditions for the work day to properly flow and maximize resources allocation in the best fit. Thus, the store should be at its best to its opening for the customers, as complete and organized as possible. Therefore, the department chief should begin the workflow by observing and analyzing store filling as well as orders already placed, orders needs and current stocks. Then, check needs and critical points that need more attention and assistance is fundamental. Supervise all the bad looks (misplaced products or few products on the shelf), stock break and communicate relevant information with operators to quickly mitigate those occurrences. Also, there is the necessity to occasional employee change decisions, due to some absence or other unexpected occurrence, so department chief should cover all these issues. Then,*Bom Dia* meeting is followed, as previously stated in provisioner morning routine with the purpose to highlight key information on the previous day performance involving all the high level hierarchy. Next, there is the department meeting (food, non-food, bazaar) to communicate relevant info on more oriented department subjects.

After that, department chiefs need to check previous day sales and its history, consulting Daily Kaizen tool and eventual ZOOM maps whenever there is the need to further analyze an article or a set of them - tool that displays previously generated map sales of the month of different products and stores, saving a lot of time and effort if compared with Retek consultation, that only provides information about a given product on a given day.

Throughout the day, head of department has the main accountability of supervising and guarantee every corridor, section and team is working as the planned or act according to needs changes. For this reason, they often manage teams, operators' allocation, days off and schedules in WFN - team management tool and delegate responsibilities according to the theme of stated issues in Workflow - where all notifications are listed, for instance matters of expenses, warehouse returns, notify incidents with specific items and so forth

When there is the case of too much stock on certain products, most frequently in perishable products, like fish the head of department often requests a decrease in prices to the commercial direction team. For that, he or she should inform how much stock of the article currently exists and ask for a reduction in StoreRequest system. This is a common system for the entire store but is mostly used by the perishables department. They only have authorization to decrease price to fresh fish due to its perishability and should comply to specific instructions: before lunch price decrease is about 25%, increasing to 35% to after lunch period. If these practices are not followed, everything is registered in future reports, every *Continente*'s employee is constantly evaluated and measured in different KPI's.

In respect to wastage management, after provisioner operators launch wastage products, the chief has the responsibility to analyze and approve it or not everything that is going to be donated, checking if the quantities are in compliance with what is reported to be the wastage and agree on which products are distributed where. It is to note the section chief usually works more than 8 hours and for that reason before each day, he should guarantee a good store operation for the next shift of operators is well planned and functioning. The day is finalized with every system log out and laptop shut down.

To recommend a possible situation to mitigate the problems handled by this persona, in Appendix G is presented a visualization of a customer journey TO-BE.

As presented in the chief journey AS-IS, one of the major and most important steps is the physical store supervision which consists of ensure some physical store attributes such as tidiness, major needs and critical points, bad looks and stock break and occasional employee alterations as well as store filling in terms of orders placed, orders needed and stock. One potential way to improve this task would be characterized by a simple document () daily filled summarizing orders placed, needed, current stock in case is critical and which products got stock break. This document would work as a faster scan mode related to store filling instead of access several times to Retek system, to consult this numbers or enquire an operator about it. The underlying advantages would be faster info delivery accompanied by proper documentation.

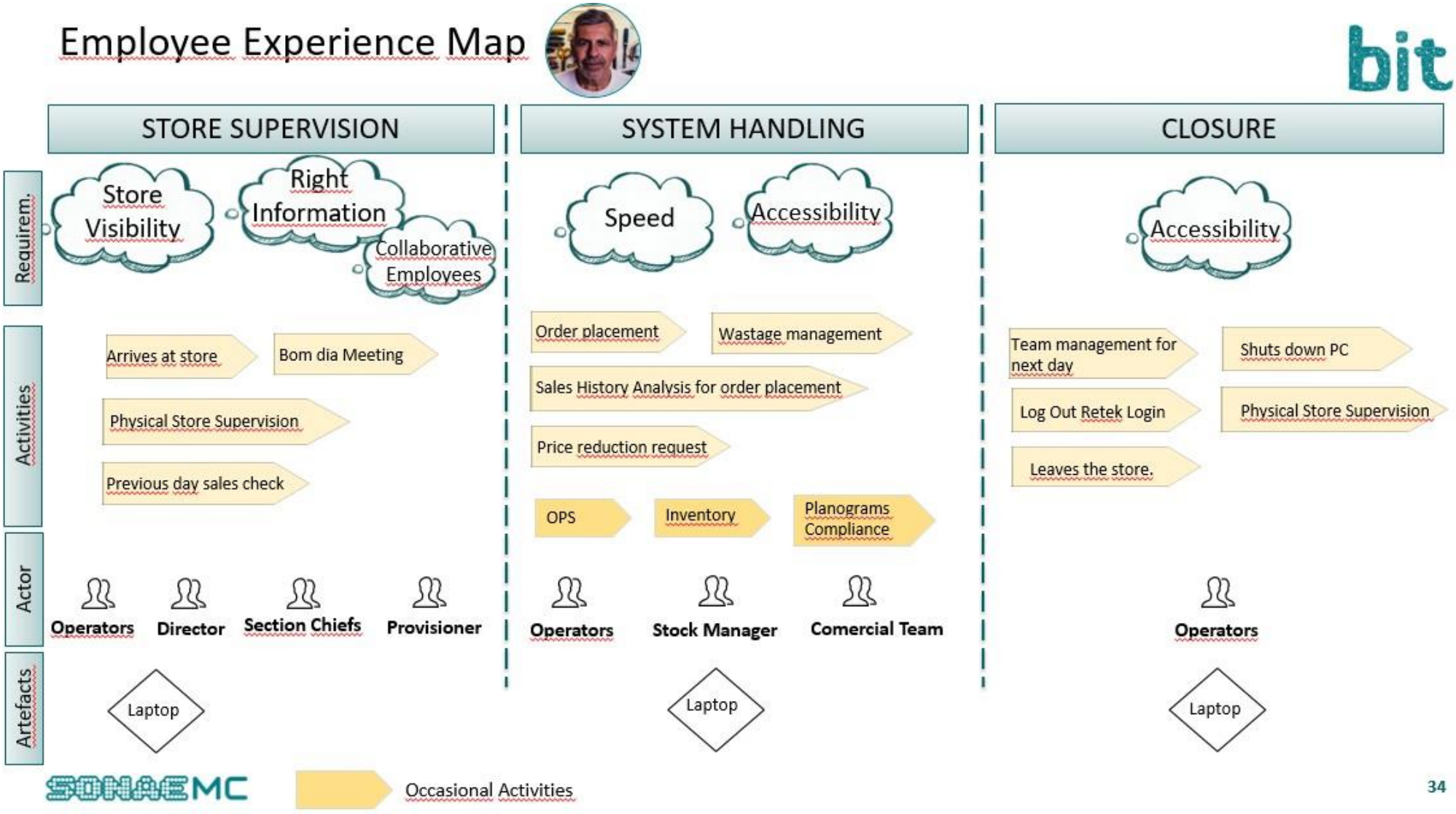

Figure 9 - Section Chief Experience

Employee Experience

Antonio's customer experience is encompassed by three key moments. Before the store opening is required to assure the store is complete and ready to open properly so the customer can have a good experience where collaboration between employees and having visibility on the store is fundamental. Afterwards, during the day the activities performed are recurring in terms of sales analysis for future order placements, wastage handling, price reduction request often for perishable products and other least frequent activities performed, but highly representative of essential actions as it happens with inventory, problem report and planograms' compliance for instance.

For the end of the day, section chief should review employee allocation for the next day and ensure a good store operation with a second round of store supervision for the next operators' shift because even though employees' schedules are defined almost six weeks ahead, there are always changes and influencing aspects to deal with.

Commonly the chief relate with the others alike, commercial team for price changing issues or campaigns products placement, store director for the daily *Bom Dia* meeting, inventory approbation and base planning, operators for team management, replacements, allocations, and any store issue that occurs, provisioner staff for price divergence, and ruptures and bad looks audit, and stock manager to handle order placement for campaigns products in CCOJA system. For price matters, sections chief usually communicate with cashier workforce.

Twice a month interact with SST team (=*saúde e segurança no trabalho*) to perform preventive safety operations from the continuous improvement program in practice.

Despite the fact this profile performs an autonomous work, there is a polyvalence due to some eventual difficulties. In the event of big campaigns, some help is needed between different sections to handle with products' replacement, in order to manage a good campaign with substantial sales volume and quality customer assistance. Cross merchandise in the same reception local is another example of cooperation.

Table 4 - Section Chief Improvement Suggestions

System / Issue	Improvement Suggestion	Advantage
Daily Kaizen	Perishables department - Unify subsections by store instead of the user having to select one or another, in order to visualize all sales information in a single screen and be able to compare and evaluate department performance. Last update made it less functional.	Time saving; united vision of global perishable sales enabling a better understanding and visibility on the department. Avoid the number of clicks.
Retek	Every department - Speed up processing power and retrieval capabilities.	Time saving in several daily tasks, with high impact on articles' report processing, order placement and sales analysis.

Order Systems	Perishables department - Standardization of every subsection ordering systems instead of working with 4 channels for the same task. Same section (meat) with two channels.	Process streamlining; significant time and effort saving; task transmission to more department collaborators if need be.
Over Stock	Bazaar department - Ability to return to supplier bazaar stock mainly China imported in order to decrease stock accumulation and big volumes in the warehouse complicating general space management and arrangement.	Improved work conditions and warehouse management; streamlined inventory.

Customer Service (SAC) Operator

Ana Rocha is a woman at the age of 39, who was born and raised in Porto city. Due to her good communication and people management skills, when she started working at Continente as a cashier, soon Married and an active mother of two, is currently pregnant. Ana is a profound yoga lover who recently joined a volunteer environmentalist association with different initiatives in regards to pollution and animal rescue. Presents moderate technological skills due to children's' influence from different devices such as tablets and iPods and for that reason never hesitates to learn something new, making it a good fit in terms of system apprehension for the customer service department. In terms of lifestyle, values a healthy and positive work life balance.

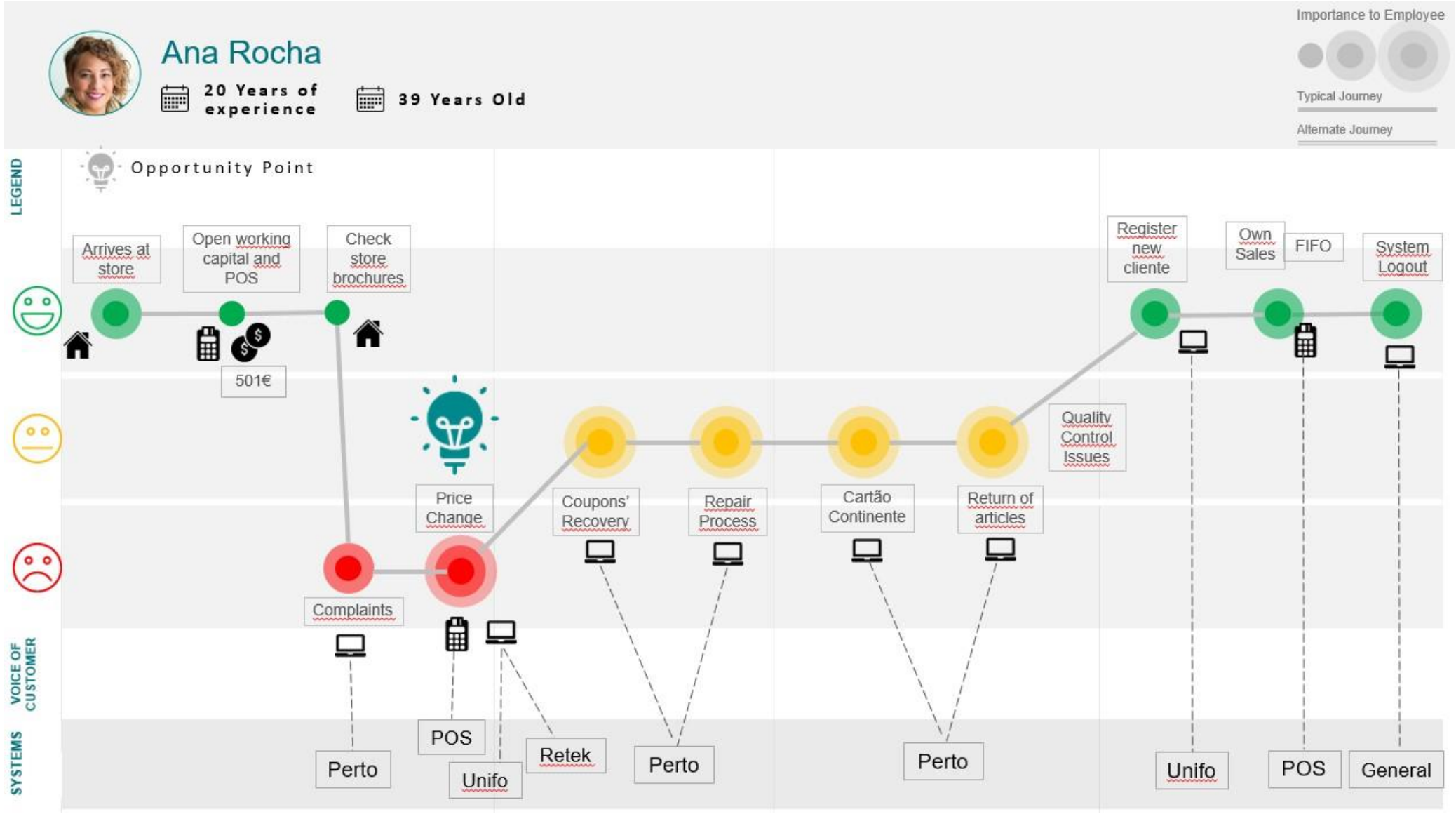

Figure 10 - SAC Journey

Employee Journey

"Here we have a different fund of 501 euros - in notes and coins, which we have to distribute through the drawer. The box has a fund of 101 euros, the SAC is 501. We have to have a bit more of monetary slack for exchanges and returns." SAC Operator.

From observing Ana's daily workflow, it is possible to state her morning starts by opening their working capital and respective POS. This department usually has a 501€ liquidity to deal with the high volume of daily exchanges and returns. Next, it is essential to assure store brochures available at the store entrance are correct to deliver the customer with accurate information not misleading them with wrong promotions and so forth.

It is relevant to highlight in this employee journey the sequence of tasks is random except for the start and closing moments. This is due the fact SAC department is in charge of several customer service issues, therefore does not have to follow a strict order of activities while attending clients in order of arrival. That said, all complains there is in the store, is processed in here.

All kind of coupons recovery and *cartão continente* issues are processed within this team, in Perto system such as balance check, coupons verification and others. Repair process is another accountability of SAC operators which consists of sending some products to the supplier as it happens with toys or electronic devices. Also, articles' return occurrences are a daily event as customers have 15 days to return most of the store products with some exceptions. As a consequence, this returns are generally approved when products remain on the same good conditions as when upon the purchasing moment which raises some quality control concerns.

In the case of a new customer who wants registered invoices, those registrations are issued in this team and represents a frequent assignment.

Besides all the customer assistance component, the department also has its own tobacco sales as well as credit card memberships. Often FIFO is applied when it comes to products placement in order to sell first older products. As different operators access to the same laptop, at the end of the day is not required to do system log out as they are various and usually have automatic logout for security issues.

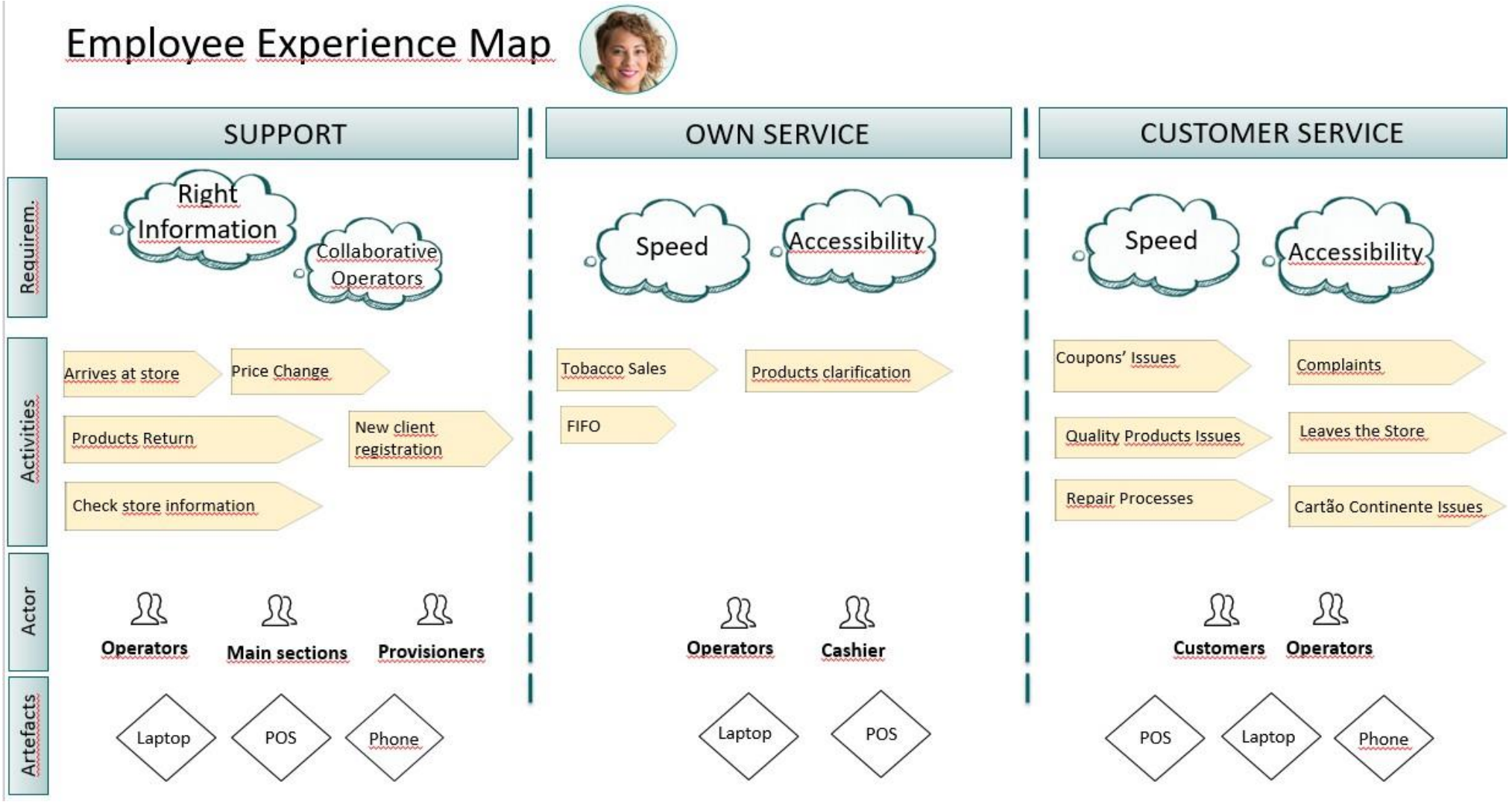

Figure 11 - SAC Experience

Employee Experience

Regarding the overall employee experience of this employee, it is possible to divide their routine into three major moments: support to the store, own service and customer service. In support to the store, there are very store transversal issues. This service deals with price change processes, products return, verification of available store information and register of new clients. For their own service, there are tobacco sales and some enlightenment concerning different products features. In terms of customer service there are a lot of different issues happening every day related to coupons' issues, complains and repair and quality control processes. The artifacts utilized are always the laptop, POS and phone for the store communication.

For customer service operators, their connection with the rest of the store teams is transversal and diversified, since any issue from any store department converges here. Nevertheless, it is common for them to interact mostly with cashier operators to handle new customers or price checking. Also, cashier supervisor is often present, different sales operators from the different main sections are frequently consulted to confirm price tags and promotions and occasionally suppliers are contacted due to repair orders. Summing up, operators, provisioners to approve returned products, and cashiers are who interact the most with customer service team.

In regards to what this role typically involves, customer service is expected to provide an excellence service to the customer with maximum effectiveness and quality. This said, it is a store service in direct contact with the customer and for that reason, highly unpredictable. It is to emphasize this section is in charge of any incidents that occur with the customers, resulting in the majority of times in conflicts unattached to their accountability. Hence, customers approach this service already upset and annoyed, so calm and self-control is highly demanded in a role like this, since it is common for the customers to have short-tempered attitudes some of the times resulting in complaints. For this reason, it is also critical for employees in here to have sensitivity to deal with people and analyze the type of client in order to manage both parties and avoid creating more difficulties than the ones on the pipeline. Psychologically, this position has been pointed out as the toughest with a high rate of sick leaves. Typically, there are busier hours that require a lot of dynamism and proactivity towards problem-solving, mostly at the end of the day. Unlike other departments, customer service make use of mainly five systems, all of them with a multiplicity of different features and options and most of the times, more than one way to solve the same problem, which generates confusion. Also, this team is accountable for several complex processes with a lot of specificities, such as handling returns, product exchanges, repair issues and discount applications or coupons. This together with the fact of having different systems available makes it important to have good knowledge about them and be agile in order to try to identify the fasted way to accomplish a given task, avoiding to loop around multiple systems at once. Naturally, this reality involves good learning skills.

In terms of evaluation of systems, this department is not satisfied with BPM – the system dedicated to technical repairs, since it is claimed as a not intuitive platform involving a lot of clicks to accomplish any repair process. Also, Retek is stated as a slow and time consuming system, mostly to access stock information of other stores. In what comes to Perto system, this department considers it is a quite intuitive and easy to navigate system, and for this reason they are reasonably pleased with what exists. Lastly, in respect to Unifo system, customer service considers this is also a well-organized and perceptible interface. Generally speaking, systems available for customer service team work well and effectively.

Below there is the improvements suggestions expressed by these group of participants. For the present research, it was not necessary to describe an improvement scenario, as it would not add

any value to the present research, as it was verified that it would bring results like the other ones relatives to the other employees.

Table 5 - SAC Improvement Suggestions

System / Issue	Improvement Suggestion	Advantage
Coupons	Intelligent coupons – upon the purchase, immediate identification of the discount in a given product – e.g.: rice package with 30% off is recognized in the POS already with the updated price.	Time saving in the checkout process; elimination of price tags' mistakes with the automated process.
POS	Eliminate the request to introduce the "number of customers" in the queue at the end of the day, that usually cause a barrier in the system and an unnecessary delay and makes no difference whether the operator provides the information.	Time saving and faster checkout process.
Perto	*Cartão continente* balance consultation. Assure balance consultation displays the customer identification, (name or citizen card number) for security purposes, to avoid someone using other's loyalty card. There are two ways to check the balance: one with 2 clicks not asking for ID; another much longer with more than 5 clicks that requires clients' ID – eliminate the longer.	Improved security and more coherent processes, with only one possible way to accomplish it.
Perto, Retek, Unifo, Sonae Circle	Systems standardization. Elimination of different passwords.	Single system to work; elimination of ways to perform the same task. Consolidation of processes and knowledge.
Training	Make available work guidelines for new workers or an intense training period.	More effective operators and improved customer service provided.

5. Recommendations for Service Redesign

The identified bottlenecks and pain points allowed to think of possible solutions to improve employees journey and experience. One of the pointed bottlenecks for the provisioner operator was the fact order placement for the departments, specially the perishables one is done through multiple systems and platforms, more specifically in four: meat in CCLOJA, fish in RAM, fruits in OrderBook, and general orders in Retek except when there are promotional campaigns and those products are blocked in Retek, having to be ordered through CCLOJA. Campaign's orders are placed in CCLOJA aiming to better target orders.

This said, a potential solution for this issue would be instead of going to the different interfaces for the different orders, the user would go to a common interface similar to a search engine with the objective of avoiding going to each different system. There, the user could have an option in a dropdown menu of what kind of products would be ordered: meat, fish, fruits and general products. Next, the system would communicate with the correct corresponding system, according to what the user has selected in the initial menu: if fish option was selected, then fish range would be available in the next screen and retrieved results would be filtered by this action.

This option would allow the different users to go to one single screen and from there be directed for the correct system of the selected product.

In terms of accesses, taking into consideration the three major sections of the store: food, non-food and bazar, the available options in the screen of the search engine for each employee of these different sections would vary according to what makes sense. This differentiation occurs in order to minimize the visual noise presented as user experience interaction is designed to be as intuitive and simple as possible. For this reason, specific screens are displayed according to each type of user as follows.

- Perishables department are able to visualise meat, fish, fruits, and campaigns options;
- Food and non-food department are presented with general and campaign buttons.

Here follows a potential visualization for this solution. The first screen is the home page of this platform, where the user can choose the kind of product desired to order.

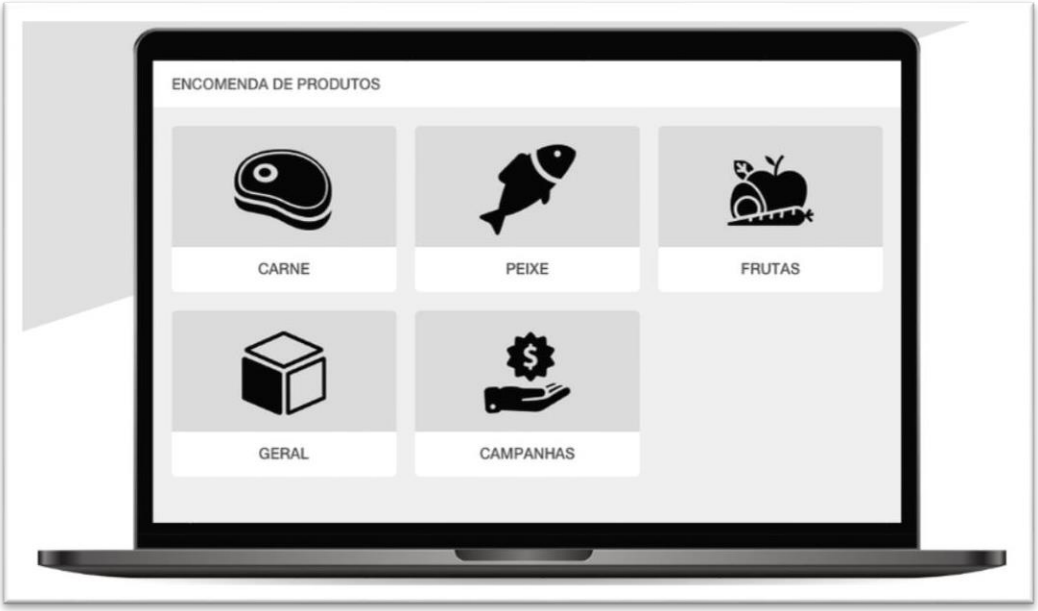

Figura 12 - Interface X Homepage

The next screen is the system interface of the selected product to order. In this case, the user has selected fruits so he is displayed the Order Book interface.

Figura 13 - Fruits' Order System

In terms of a high-level architecture of the system, a potential flow for the *Interface X* would process as follows.

The user would begin its experience through login in the *Interface X* followed by selecting the type of product desired: meat, fish, fruits, general orders or products in promotions' campaign. Then, from the product EAN-13 code or SKU (= stock keeping unit, unique for each product range) the system would run a decision process through a simultaneous search between Retek,

RAN, OrderBook and CCLOJA systems. After, it would identify the correct system and retrieve it to the user, directing him/her to the system interface.

After the first step dedicated to the login, an extra element to enhance the overall user experience in the system would be the integration of the passwords for the different systems. That said, the first password inserted in the *Interface X*, would unlock the access to the following systems to which the user would be directed. The fact that an intermediate step would be eliminated would decrease the time involved to complete the task, i.e. order placement, speeding up the overall process resulting in an improved experience.

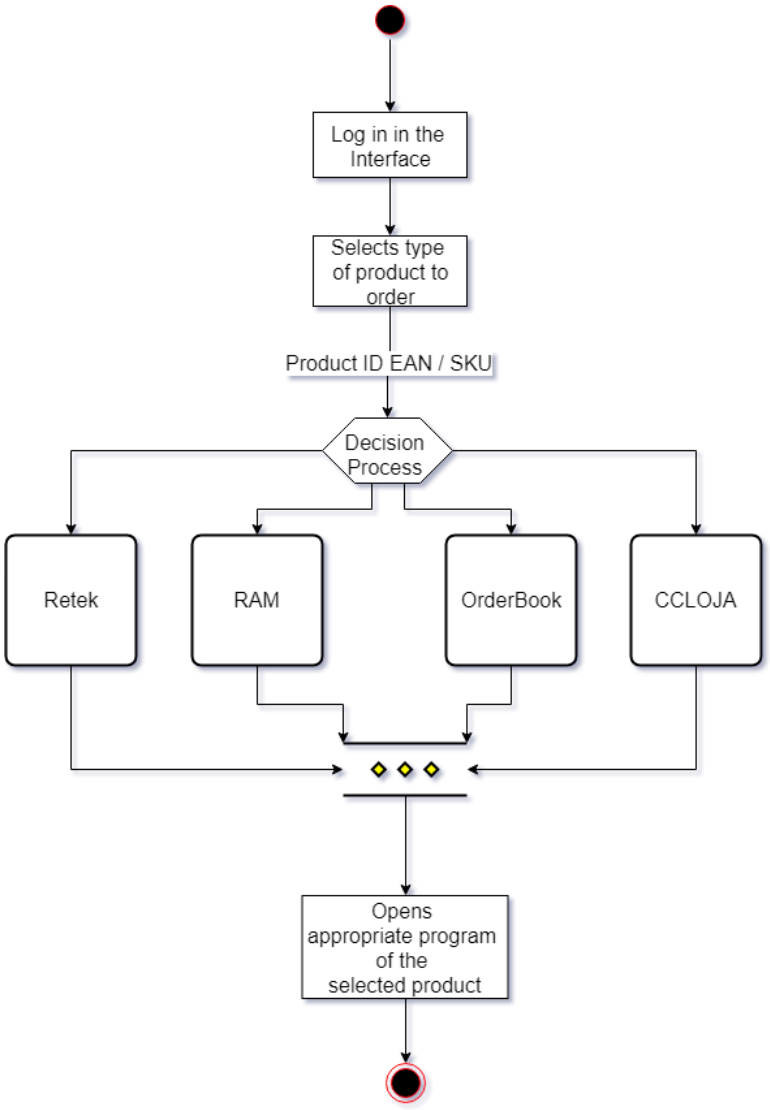

Figure 14 - System High-Level Architecture

Also, this study could also be applied to many other Sonae areas and teams, as the lack of material and tools on employees journeys and experiences is general across the organization, and would be of great value. This said, the present project is able to be replicated through different realities, whether in store or in business oriented teams. The methodology would be followed as previously detailed in this report, in order to gather the richest data possible.

6. Conclusion

In the beginning of this work, two main research objectives were raised:

RQ1: Understand the instore employee experience to generate inputs for the development of innovative retail solutions.

Retail employees manage their work by combining different elements, involving several systems, intervenient and influences. Their main challenges are related to whether system difficulties, such as system slowness, multiplicity of not integrated tools or the existence of more than one process to handle the same problem. This identified lack of consistence highly reflects on different daily workflows and consequently in their productivity and performance.

RQ2: Design a new employee experience mapping adapted to the retail employee experience.

As it was presented, some employee journey and experiences were presented, accompanied by a detailed explanation of its main elements and supporting logic. Additionally, beyond the mapping component, some suggestions and improvements were also outlined, taking into consideration data collected from the participants both in the conducted interviews and in observation executed in store beside them.

This said, the two initial objectives were explored and fulfilled. The project has allowed to gain a deep understanding on several instore contexts and relationships, including major constraints and positive aspects which then permitted to conclude what are the main experience requirements each role values and the motives behind it. All the results presented are fruit whether of several participants' reference which confirms their relevance or in case it has been mentioned by less participants, the impact and scope of the statement was evaluated and in some cases were also presented in the results.

The results achieved allows Sonae to offer an experience of excellence starting in internal circles of their own workforce, where the organization controls the tasks, the processes and is able to report these performances on a daily basis.

Meanwhile, some limitations were found and felt during the project development. In some way these did not allow to explore all relevant considerations, and thus there were some minor issues that affected accomplishing all the project goals.

Regarding the limitations and the conclusions of the work developed, some future work was detected as mentioned in the last chapter. Affected by the lack of time and also the resources available, some issues could not be fixed or further explored. According to the research results, there are some opportunities that would increase value to the company and the teams that are responsible for the customer service and attendance, both things Sonae highly worries on providing an excellent service.

Finally, the time frame of this research was not enough to implement the improvements carried out during the project development. It would be more interesting for the conclusions if there was data that could analyze the impact of the implementation in order to understand if the improvements were successful and feasible or not.

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APPENDIX A: Interview Script

Name:_____

Department:_____ Function:_____

Age:_____ Experience Time: _____

Interview Proposal:

1. Tell me about your daily workflow.
    - What reasons do you come to the system for?
    - Do you often succeed in doing what you intended? If not, why? (Identify touchpoints and pain points)

2. Generally speaking, what are the critical points you feel the most in your daily routine? (Pain Points)

3. What is your satisfaction towards the system regarding this task?

4. What skills do you think are most critical to this job?

5. Does your department / function relate a lot with other(s)? How would you describe the interactions?

6. What do you think that should be improved? How?

APPENDIX B: Utilized Systems by Employee

Taking into consideration the focus of the present study, oriented to understand and map different employees' experiences, an analysis on the tools and digital touchpoints involved was conducted. Having that said, coupling with the fact the present report is limit in terms of page numbers, the following table sums up all the systems under use in the store each one corresponding to the different roles. As it shows, chief profile uses several systems in case anything under his or her management fails, meaning that issue has to be covered either way. Cashiers only use Unifo system and fila única (=single queue system) while customer service uses Moneygram, Perto, Retek, Sonae Circle, BPM and Unifo.

The numbers presented reflect how many participants have referred to use a given system.

	Chief	Provisioner	Cashier	SAC
1 : CCLOJA	2	3	0	0
2 : Daily_Kaizen	2	0	0	0
3 : Email	3	4	0	0
4 : Fila Única	0	0	2	0
5 : Helpdesk	2	0	0	0
6 : MoneyGram	0	0	0	4
7 : Perto	0	0	0	6
8 : MRS In Store	4	6	0	0
9 : RAM	0	2	0	0
10 : Retek	6	5	0	6
11 : Order Book	0	2	0	0
12 : SONAE CIRCLE	3	2	0	3
13 : Workflow	2	3	0	0
14 : BPM	0	0	0	4
15 : Store Request	2	2	0	0
16 : Unifo	0	0	8	6
17 : WFM	2	0	0	0
18 : Zoom	3	0	0	0

The following tables display with more detail which systems each employee utilize during their roles and workflows also including through which artefact the system is accessed and the purpose of the task.

- **Provisioner**

System	Artifact	Task
CCLOJA	Laptop	Meat Order Placement and campaign' products order.
Email	Laptop	General store communications.
MRS In-Store	PDA	Check stock, prices, tags, inventory, product reception. Exception List. IGL.
RAM	Laptop	Fish Order Placement.
Retek	Laptop	Order placement, Stock correction, Wastage value, exception list.

OrderBook	Laptop	Fruit Order Placement.
Sonae Circle	Laptop	Campaigns, contacts and work instructions' consultation, Company Transversal Information.
Workflow	Laptop	Mostly a notification tool: returns; actions over certain products; acknowledgements and visibility.
Store Request	Laptop	Price reduction request for excess stock.

- **Cashier**

System	**Artifact**	**Task**
Fila Única	Button at Checkout	Call the next customer in the queue whenever ready.
Unifo	POS	Products' registration.
Internal phone	Telephone	Contact support with supervisor, cleaning or security team, customer service, and different main sections for price checking and price divergence processes.

- **Section Chief**

System	**Artifact**	**Task**
CCLOJA	Laptop	Consultation of campaigns' information. Occasional meat order placement.
Daily Kaizen	Laptop	Analysis of previous day sales. Processing of daily, monthly and annual sales. Consultation of stock and wastage.
E-mail	Laptop	General store communications.
Helpdesk	Laptop	Registration of systems, accesses or tools' anomaly. IT general assistance issues.
MRS In-Store	PDA	Check stock, prices, tags, inventory, product reception.
Retek	Laptop	Order placement, Stock correction, Wastage approval and others.
Sonae Circle	Laptop	Campaigns, contacts and work instructions' consultation, Company Transversal Information.

Workflow	Laptop	Delegation of responsibilities.
Store Request	Laptop	Request for decrease price of excess stock.
WFN	Laptop	Time Management – schedules, days off and people allocation.
ZOOM	Laptop	Weekly sales analysis

- **Customer Service**

System	Artifact	Task
Moneygram	Laptop	Moneygram Agent - Execution of money transfer between different countries.
Perto	Laptop	Complaints handling and loyalty *cartão continente* general issues, quality control problems, purchase slips retrieval and coupons concerns.
Retek	Laptop	Consultation of store products, prices, and stocks including accessing other stores' stocks information.
Sonae Circle	Laptop	General processes' consultation; deal with purchase slips or other issues relative to other stores.
Unifo	Laptop	Issues related to cashier's processes - price changes and checking, operators' rankings, register of new customer, occurrences of changes and returns and others, consultation of purchase slips of any checkout / day of purchase.
BPM	Laptop	Technical assistance issues for kitchen robots (yammi), and coffee machines.

APPENDIX C: NVIVO Screenshots with categories trees

The following image reflects different query results generated from the collected data. As previously mentioned, for each role different elements were studied: activities, actors and interrelationships with other teams, artefacts, bottlenecks, feelings, role capabilities, improvements suggestions, utilized systems and correspondent evaluation. As it is possible to assess, the image presents query results of cashier role information crossed with the different variables under analysis. These queries were replicated for the four different roles under study.

Name	Files	References
cashier_activities	8	16
cashier_actors_relationships	7	29
cashier_artifacts	8	23
cashier_bottlenecks	8	33
cashier_feelings	8	55
cashier_role capabilities	8	30
cashier_suggestions	8	25
cashier_system_evaluation	7	20
cashier_systems	8	12

APPENDIX D: NVIVO Screenshots with detailed defined categories

The following tables are what served as a base to achieve conclusions presented. For space limitation reasons, these are in the present appendix. The numbers presented in all tables reflect the number of participants who have mentioned each topic in their daily routines.

- The first table contains all the categories above "Activity" topic. The highlighted cells are where each employee responded with some content regarding to the subject in each row.

	Chief	Cashier	Provisioner	SAC
Goal	4	1	3	0
Inventory	2	0	0	0
Negative Stock	0	0	4	0
Order	4	0	4	0
Physical Store	3	1	0	1
Supervision	2	0	1	1
Wastage Mgmt	1	0	4	0
Analysis	2	0	0	0
Bom dia Meeting	2	0	0	0
Price Difference	2	1	0	3
Problem report	1	0	0	1
Procedures	2	1	0	5
Crítica	0	0	1	0
IOW	1	0	0	0
Rutura	0	0	0	0
Supervision	4	1	1	2

- This table contains all the categories above "Artifact" topic.

	Chief	Cashier	Provisioner	SAC
Checkout	0	2	0	1
Documents	1	0	4	4
Drawer	0	1	0	0
Laptop	6	0	1	5
PDA	2	0	2	0
Phone	0	6	0	4
POS	0	4	0	4
Printer	0	0	2	0

- This table contains all the sub-categories under “Actors” and “Interrelationships”. These two nodes are presented together for the similarity and relevance of being connected.

	Chief	Cashier	Provisioner	SAC
ALI	0	7	0	1
Chief of Section	2	1	4	1
Commercial Team	2	0	0	2
Customer	0	1	0	6
Diretor de Loja	3	0	0	0
Operators	6	2	3	3
Permanência	2	0	0	0
Provisioning staff	2	0	0	0
SAC	0	3	0	0
Stock Manager	2	0	1	0
Related	2	1	2	2
Prices	1	2	0	2
Space Logistics	1	0	0	0
Unrelated	5	4	3	0

- This table contains all the sub-categories under “Bottleneck” node.

	Chief	Cashier	Provisioner	SAC
Alternative ways	1	1	1	1
Interpersonal Reasons	2	3	2	3
IT Systems	3	6	3	4
IT Limitations	1	2	1	1
Stock	3	0	0	0
Nature of the Job	5	7	3	5

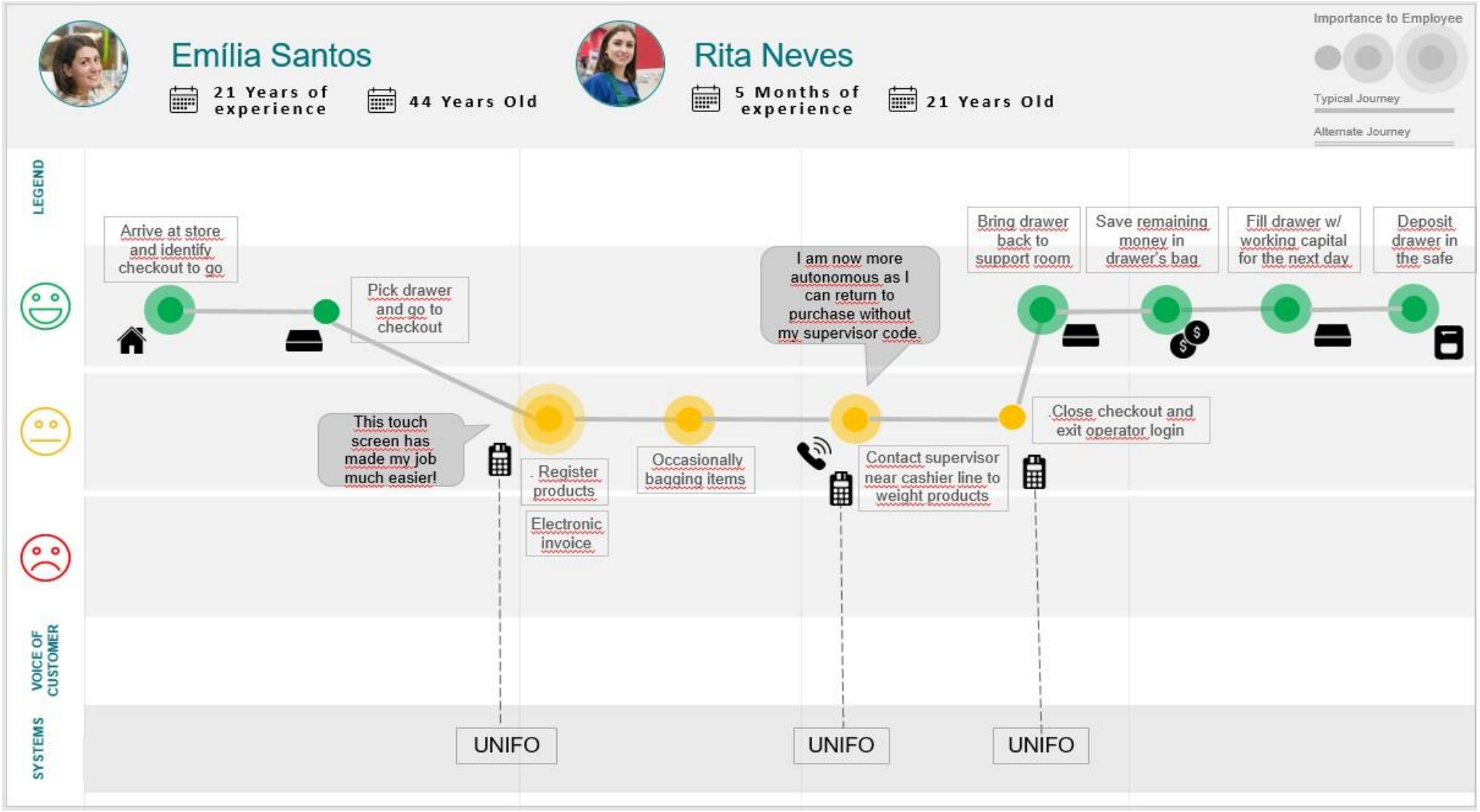
- This table contains all the sub-categories under “Feelings” node.

	Chief	Cashier	Provisioner	SAC
Apprehension	1	4	3	3
Attentive	4	4	3	2
Collaboration	5	1	0	1
Confused	1	1	0	4
Frustration	5	6	2	2
Negative Influence	3	4	2	4
Neutral	2	1	1	0
Patience	2	2	1	3
Pleased	3	5	2	4
Stress	2	2	0	5

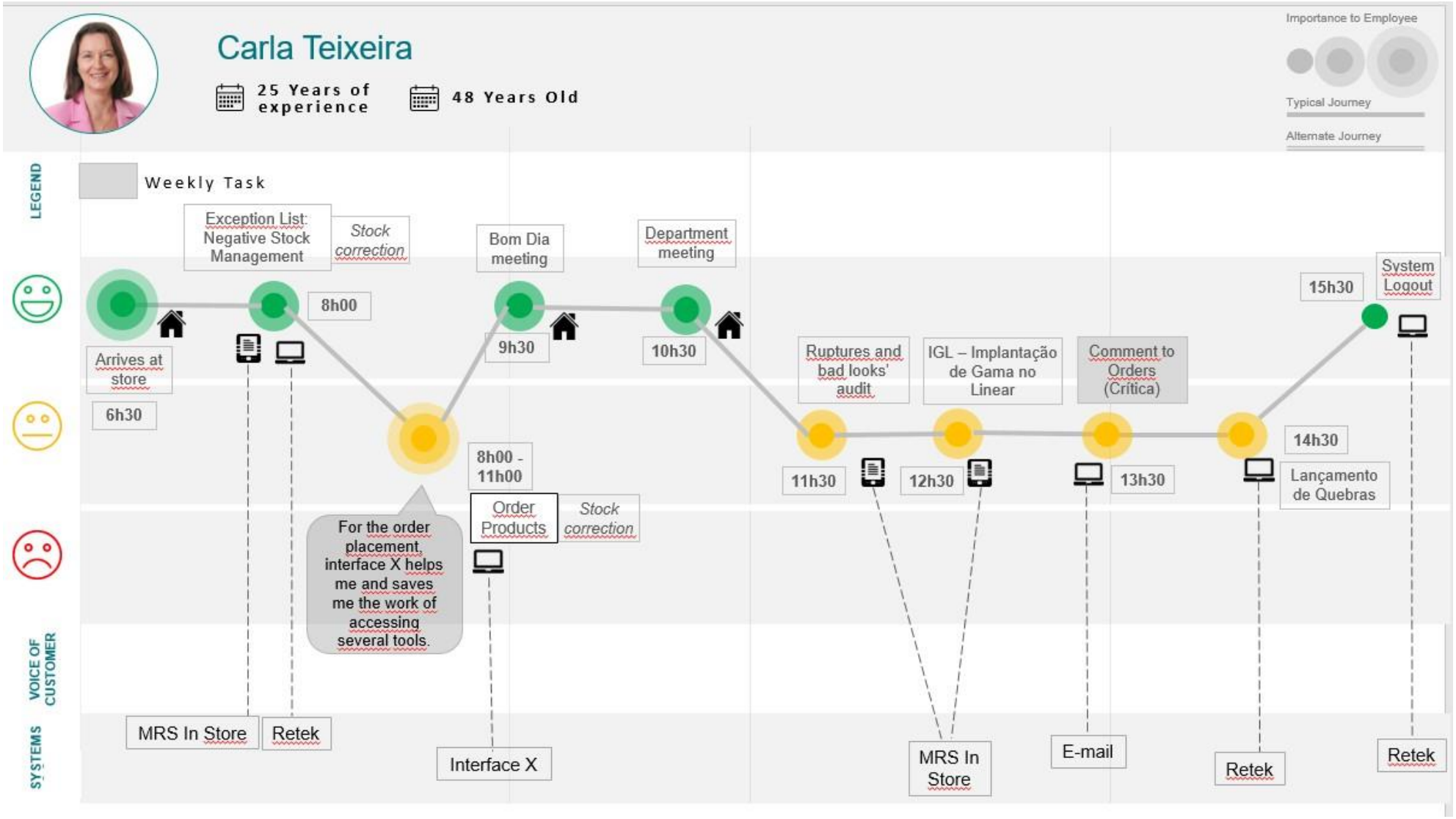
- This table contains all the sub-categories under “Role Capabilities” node.

	Chief	Cashier	Provisioner	SAC
Calm	0	3	0	4
Dynamism	1	2	2	3
Fast	0	4	0	0
Focus	0	1	0	1
Knowledge	1	0	1	2
Mindful	1	2	0	3
Motivation	2	0	1	0
Multitask	1	0	1	0
Observation	1	3	0	2
Organization	3	0	2	1
People Mgmt	3	2	1	2
Physical	3	0	0	0
Self-Control	0	1	0	2
Supervision	2	0	1	0
Sympathy	0	4	0	3
Teamwork	1	0	0	2

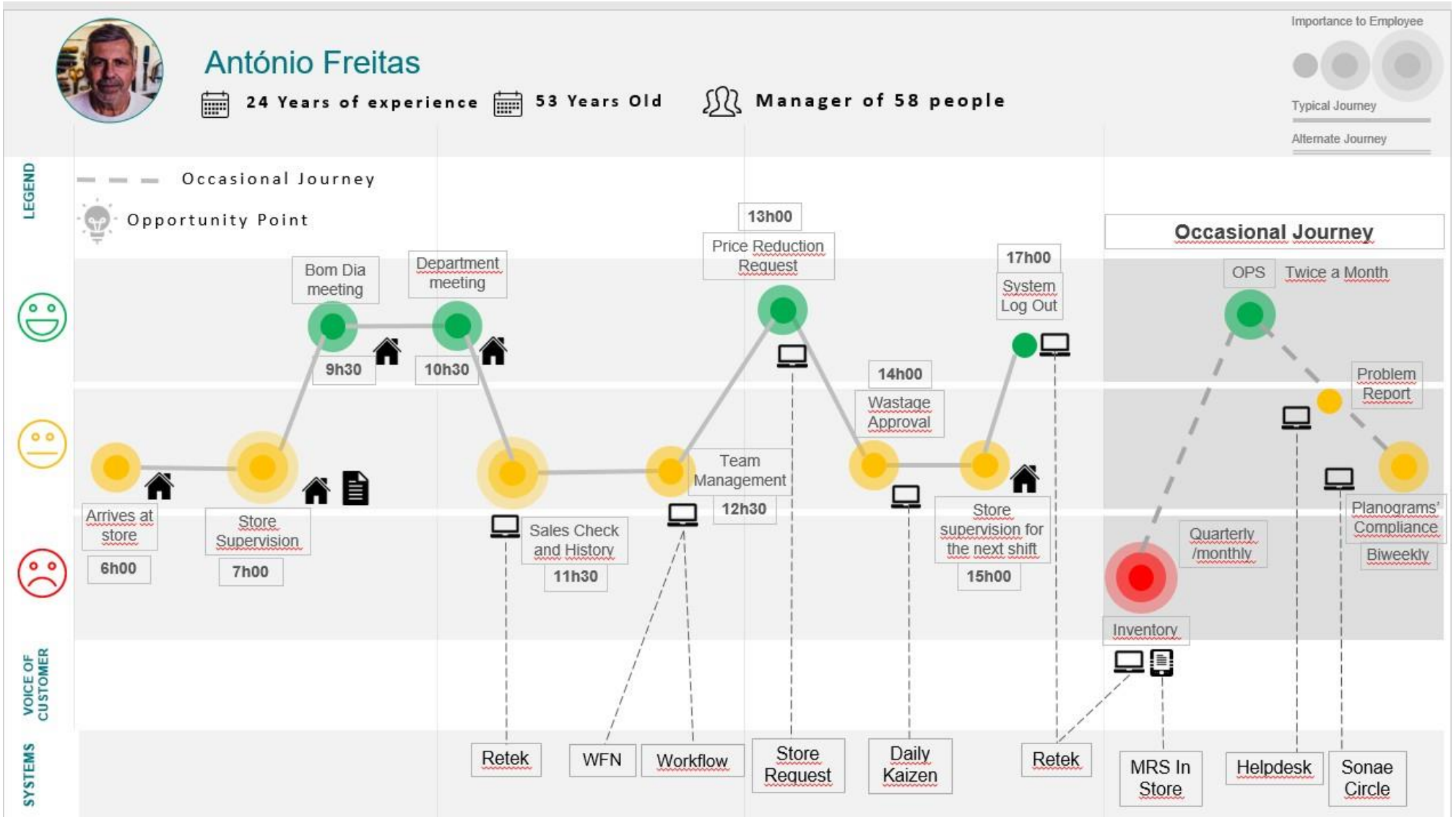
APPENDIX E: Customer Journey TO-BE for Cashier Role



APPENDIX F: Customer Journey TO-BE for Provisioner Role



APPENDIX G: Customer Journey TO-BE for Section Chief RoI



APPENDIX H: Document to Support Store Supervision for Section Chief

	Orders Placed	Orders Needed	Stock	Stock Break
Product X	X			
Product X		X		
Product X		X		
Product X		X		
Product X			500 un	
Product X			300 un	
Product X				X
Product X				X
Product X				X
Product X	X			
Product X	X			
Product X				X
Product X			100 un	
Product X	X			